

Original Correspondence.

INFLUX OF WATER IN THE MINES OF THE GWENNAP DISTRICT.

SIR.—Some years since I made a calculation of the quantity of water being discharged from the shafts of the different mines into the adit known as the "Gwennap Main Adit," the result of which was that not one-half of the water so pumped up found its way out at the mouth, which at the time was suggestive of the propriety of *laundering all the tributaries to the main trunk*, and so keep it from again finding its way down into the mines. I am convinced that if this method were adopted a less number of pumping-engines would be required throughout this important district, and as a matter of course be the means of saving thousands a-year to many of the different companies engaged in mining pursuits, to say nothing of the serious lets and hindrances occasioned every winter.

St. Day, Cornwall, Feb. 7.

CHARLES BAWDEN.

THE MINES PURCHASE AND FINANCE COMPANY.

SIR.—I feel convinced that every person in Cornwall engaged in mining pursuits and speculations, as well as adventurers residing in other parts, will welcome the appearance of a company which, by a judicious and sensible plan, is calculated to rescue the mining interest from much of the gloom and depression under which it has, unfortunately, too long laboured. Such a scheme we conceive to be the MINES PURCHASE AND FINANCE COMPANY (LIMITED), which proposes to purchase mineral property when its value has been, as far as possible, accurately estimated by the aid of experienced, honest, and intelligent agents, who will, with disinterested opinion, give what every Englishman regards as his right and expectation—"a true verdict according to the evidence." It is too well known that in recent times numerous schemes have been started with flourish of trumpets and promises of almost incalculable wealth, which have, as was to be expected from the manner in which they were formed, proved not only dead failures to the parties immediately engaged in them, but have damped the ardour of others engaged in much better speculations, and operated altogether injuriously against the whole mining community.

That all the blame ought to be attached to the parties originating these paper projects is certainly not fair, for the public are caught too often with a grain of wheat in a peck of chaff, therefore cannot but expect to be losers by engaging in speculations without first instituting rigid enquiries into their real merits and prospects of success. It has been too often supposed—with what reason the public can now, unfortunately, too well judge—that because a certain mine has turned up rich in a particular locality, therefore others must of necessity follow it in monetary value and intrinsic worth. This is simply a delusion, and the bait which all unsophisticated adventurers swallow with avidity till they feel the hook, and are caught. At the same time as these delusive phantoms are being followed, speculations thoroughly worthy the attention and pursuits of the public are disregarded, simply because usually dishonesty wears a more florid complexion, and is more flaunting in her appearance, than simple and modest truth. We believe that nothing is more requisite at this present junction than sound and worthy speculations, which will, in time, again restore the healthy tone which mining has so long maintained till within very recent times. There are at present in operation in various parts of Cornwall a large number of mines of very excellent prospects, but, owing to insufficient capital being employed, arising from the financial delinquencies of certain of the adventurers, and other causes, now languish, or are altogether abandoned. Some of these, with the addition of a very moderate outlay, would be found a profitable investment, if such capital were forthcoming. Nor can it be expected that such mines can be carried on by the minority of the adventurers for the benefit of those parties who neglect to pay their due proportion of the cost.

There are certain cases, too, in which mines have ceased to be productive immediately about the main shafts, and thus they have ceased to be dividend-paying; yet, were the system of working changed, and some additional expense incurred, would be again in a flourishing position. A case now strikes us in which the ore ground is far away from the engine-shaft, and to open every 10 fms. the shaft has to be sunk and a considerable distance driven through dead ground to reach the ore, occupying, probably, from two to three years; but if the adventurers could be induced to make the necessary outlay to enlarge a whim-shaft sufficiently to fix pitwork, and thus sink in the ore ground, it is certain the mine would again become profitable. It is to such speculations as these that we presume the company will devote its attention, and thus rescue many mines from their unfavourable and undeserved condition, at the same time paying themselves a good profit, probably from 20 to 30, and in some instances even 40 or 50 per cent. Then, again, there are neglected districts, which offer a fine field for investigation by such a company as that proposed by Messrs. Watson and Cuell. In one of these there is a mine originally productive enough to meet its costs, and a few dividends were paid, although the price of copper is so low, and tin from 42d. to 48d. per ton only. This mine is about 50 fms. deep, and perhaps few mines have returned as much tin and copper in proportion to the depth and distance opened on the course of the lode. Owing, however, to a variety of unfortunate circumstances, the mine was disposed of to a gentleman who for three years raised sufficient tin and copper to meet the working expenses without sinking a single foot, or making the least attempt to obtain fresh discoveries. There is good reason to believe that with a very moderate outlay this mine will become a valuable and most prosperous concern. Other cases quite as favourable as the above may be mentioned where mineral veins can be observed cropping up to the surface and containing argentiferous gossan, tin, copper, and lead, and showing better indications of mineral wealth than can be seen in many mines of more favoured districts. Few adventurers of the present day, however, care to embark in these undoubtedly sound speculations, preferring those of less promise, provided they exist in some favourite district, or near some "sensation" mine. The Mines Purchase and Finance Company are, therefore, doing an important work if they recover and develop valuable mining property, and thus provide the public with bona fide speculations which will ensure them handsome profits. The directors are gentlemen of position, influence, and respectability, in whom the public will place the utmost reliance, and we may rest assured that they will employ practical, intelligent, and trustworthy inspectors.

Feb. 7.

GUILLEMUS.

COPPER MINES OF CORNWALL.

SIR.—It is a well-known fact that the copper mines in Cornwall are fast exhausting, as they are in many instances reversed from copper to tin. The once great copper district of Redruth and Camborne may now be safely said to be a tin district, and it seems that our copper mines are fast coming to an end; but the question arises whether there are not other districts in the county equally as productive which are now quite neglected, and in my opinion there are many. The Perran St. George district, including Perran St. George, Perran United, and Great Wheal Leisure. These mines were very rich, and every indication goes to prove that great quantities of copper ore might be returned, as the mines are shallow, and if properly worked would make again some of the most productive mines in the county. It requires a large amount of capital to start such a concern, as the whole must (or ought to be) worked by one company, and as one undertaking. The next copper-bearing district I refer to is the Wheal Towan, or Tywarnhaile district, in the western part of the parish of St. Agnes. Tywarnhaile Mine was formerly worked by the Messrs. Williams, of Scorrier, at great profit, and has since changed hands several times. The last party raised and sold copper amounting to 70,000^l., without sinking the mine one inch, or even seeing the bottom of the engine-shaft; such an instance cannot be found again in the history of Cornish mining. The lodes in Tywarnhaile are large and productive, and as they have produced such quantities of ore at a comparative shallow depth, there is every reason to expect greater quantities at deeper points. The bottom levels never looked so well as when operations ceased. I hear that this important mine is again likely to resume working, and I know of no speculation equal to it, if conducted in a proper manner. I am not giving my own opinion of this entirely, but the opinion of most of the respectable agents in Cornwall. The Duchy officials are very anxious to see it again working, and have offered exceeding liberal terms—to let the mine free of dues until it pays. Great Wheal Charlotte is another mine in this district which ought to be better known. This mine was formerly worked by the late Capt. J. Oats, of Roseaval, and, like everything he touched, was teeming in riches: eventually the main lode was heaved by a slide, which caused the suspension of the mine. It was again worked by another company south of the former workings, and raised large quantities of rich copper ore, but, through bad management and inefficient machinery, it was again abandoned about twenty-one years ago. I have seen a report from a very respectable agent

who inspected the mine for the lords after it was ordered to stop, in which he stated the lode in the 80, or bottom level, was worth 60^l per fathom. Wheal Charlotte is also a shallow mine, and can be worked at easy cost. Wheal Music (now part of Ellen United) is another mine in this locality worthy of notice; it was worked at great profit, and is again about to start by a spirited company; it will, no doubt, be the means of working many other mines in this important district. I have no good opinion of deep old mines paying, but there are many in this county which call forth my attention, and I shall allude to others in my next paper on the "Copper Mines of Cornwall."

MINER.

EXEMPTION OF COLLIERIES FROM TAXATION.

SIR.—The suggestion of your correspondent that we should unite and agitate for the total exemption of collieries as well as mines from taxation, is one which certainly deserves to be followed up; and I also think that if an Act of Parliament exists which gives the authority mentioned—authority to the Commissioners of Public Works to lend and advance to any company or companies of proprietors for the support of any collieries or mines moneys to be issued and paid out of the Consolidated Fund—it might likewise be availed of. Reference has from time to time been made in the *Mining Journal* to the desirability of unwatering the flooded collieries of the Tyne, and all kinds of impracticable and objectionable suggestions have been put forward for obtaining the necessary funds; but it appears to me that this neglected Act of Parliament would precisely meet the case. An estimate should be obtained of the probable cost of effecting the drainage; and, after the consent of the various mineral proprietors shall have been obtained, binding them to pay the Government interest upon any advances received, the application to the Public Works Commissioners should be made for the requisite amount.

The recovery of the drowned-out Tyne collieries would be a work of national importance, and would, therefore, be a proper purpose for the Commissioners to give their assistance to; and I cannot think that any proprietor whose property would be improved would object to pay his portion of the interest for the money necessary to effect the improvement. It is probable that the most practicable and commercial mode of carrying out the project would be to form a company to take the concession of the whole of the drowned coal—such company to have a large nominal capital, and a small percentage only called up, so as to be able to offer ample security to the Government in their uncalled capital, and to reserve power to apply to Parliament for authority to exact a tonnage rate from proprietors who refuse to concede, and afterwards attempt to avail themselves of the work done by the company without paying for it.

This subject is one to which your Northumberland correspondent has so frequently alluded, that I should think he could furnish some valuable information upon it, and, perhaps, assist materially in carrying out the idea. He might also give his opinion as to the feasibility of the scheme for exempting plant and machinery, and taxing produce at bank, which, although decidedly opposed to the general principles of rating, appears to me to be peculiarly applicable to the rating of collieries, provided, of course, that exemption from taxation altogether cannot be obtained. There are, no doubt, many collieries for which such advances might be desirable, but I think the Tyne collieries are of such paramount importance that they should receive first attention.—Newcastle-on-Tyne, Feb. 7. W. L.

OIL AND COKE FROM COAL AND SLACK.

SIR.—The notice of my patent in the Journal of January 27 hardly conveys an accurate idea of the invention. The invention is improved coke-ovens, and a mode of working them, which permits of the gaseous products, now lost in the coking of coal or slack, being collected and condensed first, as if the material was only distilled to procure oil. The production of the oil is the principal object, but not the only feature. The yield of coke is larger, and any description of coke, from soft smithy coke to hard blast-furnace coke, can be produced at the will of the operator, which is in itself a very considerable advantage over those ovens at present in use. The great value of the invention is, however, the production of the oil; and the fact is apparent, when it is taken into consideration that every ton of material, whether coal or slack, used to produce coke, will yield, at a rough average, at least 20 gallons of coal oil by my invention. Were the coking-ovens of this country constructed and worked on this principle, the production of the oil wells of America would suffer by comparison with the quantity of oil that would be produced here. The cost of the erection of these ovens is but little more than of those at present in use, and their action as efficient and as expeditious.

There cannot be a doubt but that if coal oil could be obtained cheaply enough, its use as fuel for steamers and for the production of illuminating gas would very soon be generally adopted. The advantages that would accrue from such an application are too numerous to be touched upon here. By my plan I quite expect to be able, in a reasonable period, to reduce the cost of crude coal oil from 6d. 6s. per ton (the present price of that distilled in this district) to 25s. per ton. Of course, some time will elapse before I can induce the alteration of present coking-ovens; but I believe it is only a question of time.

As a coal oil distiller, it has for a long time been apparent to me that the present system of obtaining coal oil by distillation in retorts is not the correct one, when the vast quantities of gaseous matter hourly evolved from coking-ovens is allowed to go to waste, as it is. Several attempts have been made to collect and condense these gases from coking-ovens, but they all have failed, from the fact that they all more or less permitted combustion to occur in the ovens, whereas in my ovens and my process distillation and combustion are recognised as two different things. The charges in ovens, when undergoing distillation, produce oil. These charges, after distillation, being allowed to ignite, get converted into proper coke, and the heat generated by the combustion of these distilled charges is made the agent for the distillation of the charges in other ovens.

I have great pleasure in handing you complete specifications and drawings of two ovens, which will enable you to more clearly understand the arrangement. Should you deem the foregoing sufficiently important to occupy a place in your next I would be glad if you would insert it, the notice inserted in last week's Journal being vague. J. NICHOLAS.

Mineral Oil and Chemical Works, Aspull, Feb. 3.

FINANCIAL COMPANIES, AND SHARE TRANSFERS.

SIR.—That "Experience teaches" is an indisputable fact, and it is equally true that experience must always be paid for; but while some disciples prefer to pay a sum down to secure and profit by the experience of others, there are some who, very properly considering that there is always difficulty in determining whether a friend's advice is given for his own advantage or yours, regard it more economic to wait until the time of jubilee comes, when "Experience makes Fools wise," hoping that he may be included in the number then passed as having ample wisdom. During the past few years the merits of an enterprise, whether commercial or industrial, have seldom been regarded by capitalists, the introduction of the limited liability system generally having caused an amount of recklessness, which would have been unknown under the old system of unlimited liability. It must not be supposed that the limited liability principle is objected to, far from it; indeed, all our greatest works have been carried out under it—the chief difference being that whilst under the old system there was at least the necessity for a special Act, or Letters Patent, or a Royal Charter, the present system permits financial undertakings with even 5s. shares, and gives them the power by ingenious, though questionable, contrivances, in connection with the framing of the accounts, to continue for some time to show profits, although in truth none are realised.

Confidence in the permanent stability of financial concerns must be rather diminished than otherwise by all that has been brought to light respecting their internal proceedings, and if the entire nature of those undertakings be carefully analysed, it is probable that capitalists will again turn their attention to legitimate business, which cannot fail to be more permanently profitable to themselves, and more beneficial to the country. It is only recently that a case was brought before our courts, in which the holder of 500 shares, upon which he had paid up 10^l each, desired to sell his shares for a merely nominal sum, in order to relieve himself of the responsibility to pay an additional 45,000^l—the accepting of the 500 shares having really rendered him liable for that sum, in addition to that already paid. Now, the result of the first year's operation of the company was, according to the published accounts, profits at the rate of more than 12 $\frac{1}{2}$ per cent. upon the average, and in the following year (and, therefore, whilst, had the accounts been fair, the concern must have been far more than solvent) the transfer of shares to a person less responsible than the present holder was objected to by the directors. It is probable that, in this instance at least, the directors acted with both judgment and justice, but the question naturally arises whether the justice might not have been

exhibited somewhat earlier. That which in this case is brought to light could be found hidden in connection with every financial company in existence—the shareholders are not paid dividends from profits earned, but out of their own capital, and when this is exhausted, in addition to the small gains which are accidentally derived from strangers, the profits cease. The process is this—a "Financial company" is formed; with a capital of (say) 1,000,000^l, in shares of 100^l each, but as only 10^l per share is called up, it is only necessary to draw from the public 100,000^l. Now, the Financial company decides upon paying 20 per cent. dividends, and although the ordinary business man knows that profits cannot be arranged at will, the Financial company has no difficulty in the matter; all that is necessary being to undertake the promotion of another project, stipulating that 20,000^l. shall be paid to the Financial company for floating it. The Number Two company is floated with the capital of the Financial company, and the 20,000^l distributed to the Financial company shareholders as dividend. The Financial company is now prosperous.

The next step is for the Financial company to undertake to float (say) 50,000^l. worth of companies, which is accomplished in the same way; and 50 per cent. can now be paid as dividend to the Financial company shareholders. They are elated. But "one more such victory will ruin us" says the more scrupulous recipient of the 50 per cent. So it would under ordinary circumstances, but long ere this "Circulation" has come into play. The shareholder in the Financial company subscribes to the Number Two Company to the extent of his 20 per cent. dividend, perhaps adding 10 per cent. or so from his private purse, and he subscribes to Numbers Three, Four, &c., companies for 50 or 60 per cent., and it is obviously to the advantage of the Financial company to continue to pay dividends so long as shareholders are willing to subscribe 100^l., and pay 10^l thereof for each 10^l dividend received by them. This is the present financial system—the system by which the enormous dividends have been paid, and the system which has so materially interfered with the obtaining of capital during the past few years, no matter how valuable the enterprise, for the development of any project, in respect of which the necessary fees, usually counted by thousands, have not been paid to some great Financial company. But one by one these monsters are disappearing from the field, and, perhaps, sooner than most of us are willing to admit, a London Financial company will be as much a thing of the past as an Anglo-Californian Gold company is at present.

Feb. 5.

TRANSATLANTIC TELEGRAPHY.

SIR.—Reference has been made in the Journal within the past few weeks to an improved compound for insulating telegraphic conductors, and which is described as being especially applicable to the construction of a deep-sea cable to connect the Old World with the New. Observing it stated that this compound is superior to every other, I took the opportunity of attending the meeting called by Mr. Macintosh, so that I might examine the compound and judge for myself. The compound is undoubtedly one of the best, if not the best, which has been brought forward; and when it is considered that Mr. Macintosh offers to connect the two shore ends for 100,000^l. I certainly think the experiment worth trying. I should presume that the cable complete, as proposed by Mr. Macintosh for the deep-sea portion of the cable, would not cost more than 6d. per mile, at the most, or (say) 20,000^l. for the requisite length to cross the Atlantic—this would leave a large margin for contingencies. The deep-sea portion being provided, the shore ends would offer but little difficulty, and would not cost more than another 10,000^l. This would leave 70,000^l. for laying, and as one of Capt. Selwyn's cylinders large enough to carry the shore ends, as well as the deep-sea portion, could be constructed, before the cable is ready, for 10,000^l, for I would only use about 3-in. plates, well fastened upon the necessary circular girders, fully 50,000^l. would remain for the remuneration of the inventors—Messrs. Macintosh and Selwyn. It should be provided that the inventors receive no payment whatever until the line is in actual work, and has been so for one month; but they should be furnished with the funds for constructing the cable and cylinder, and their out-of-pocket expenses paid if they wish to superintend the construction.—Feb. 5. H. S. F.

SLATE QUARRIES.

SIR.—I only trouble you occasionally, when I think I can contribute something that may interest your subscribers. My last letter was inserted in the Journal of Jan. 6, and gave you the first information as to an advance in the price of slates from the commencement of the present year, and also communicated what are the main indications of a good quarry. I think I can now give you information which may be useful, and as a prelude to it I will first describe what good slate rock is, and this, indeed, ought to have preceded my remarks on the indications of a good quarry, because if the rock is not good in itself it is really wasting more and more money the greater the number of galleries that may be opened.

There are two main divisions of slate rock—the Cambrian and the Silurian. The names Cambria and Siluria were given by Cassar on his invasion of Great Britain—the name of Cambria to North Wales, and of Siluria to the two English counties of Hereford and Monmouth, and the three South Wales counties of Radnorshire, Brecknockshire, and Glamorganshire. With these territorial divisions of Cambria and Siluria before us, it is curious that the terms Cambrian and Silurian have become the generic names of two different kinds of slate; and equally as curious to find that Cambrian slate, as a general rule, is considered good, and that you can cast no greater discredit on slate than by calling it Silurian. The former is hard and durable, the latter soft and perishable. From this distinction arises the very great—nay, excessive—demand that exists for the roofing slates of North Wales (Cambria).

In North Wales the great deposit of slate has been found to exist in the closest contiguity to its two highest mountains—Snowdon in Carnarvonshire, and Cader Idris in Merionethshire. Within two miles of the foot of Snowdon we find the great quarries of Asheton Smith at Llanberis, and within four miles the still greater Penrhyn Quarries of the Hon. Col. Pennant, and within a few miles of Cader Idris the late Lord Palmerston's quarries, &c.

The great Cambrian slate vein runs always, with the variation of a few degrees, north-east and south-west. Both of the above quarries lie to the north-east of Snowdon, and contain beds of slate of different colours. At Llanberis they have blue and red veins, and at the Penrhyn Quarries green, blue, and red. For several years past a very extensive vein (from 250 to 300 yards wide) all blue has been systematically worked on the south-west side of Snowdon, and of which it has been reported by one of the most eminent quarry managers that the slate is equal to any in Wales, being very strong, durable, and capable of bearing any heat, even in the hottest climates; that it is a uniform blue, and free from spots, with excellent cleavage; that the rock produces slates of best quality within 6 or 7 yards of the surface, in consequence of the peat, &c., by which it is overlaid; that it can be worked to the depth of fifteen galleries, on natural levels and with natural drainage; and that it can with advantage employ a great number of men, as is adopted at the large quarries of Penrhyn and Llanberis, gradually proceeding to produce the same results from the same number of workmen, &c. This quarry is now about being brought out as a large limited liability company by one of the most eminent firms in town.—Feb. 9. CAMBRIAN.

COPPER AND TIN MINING IN THE COUNTY OF CORNWALL.

SIR.—No one will venture to dispute that Cornwall is the richest mineral county in Great Britain; and strangers might be induced to think that the workmen employed in those mines would be well remunerated for their toil, but experience has not borne out those expectations. This rich mining county, though occasionally so productive to adventurers, is the almost ruin of the workmen, through the unsatisfactory way in which they are paid; for although the miners and their families are the most provident people I ever saw, yet they scarcely know with their uncertain gettings how to manage so as to keep body and soul together. I venture these assertions knowing that I shall be supported by thousands of my countrymen. My object in bringing this before the public is to arrive at the cause of so much distress, and try to discover a remedy. In my opinion the fault is not in the mines. The county of Cornwall is rich in wealth, which will last for ages, and, without a doubt, its great mineral deposits will be required for the use of man for many generations. I have stated that the adventurer has no security for his money, and to prove this I will endeavour to show the reason, which is that miners have no voice in the sale of their produce, whether it be tin ore or copper ore; they must take the smelters' price, be what it may. These smelters can raise their millions, and, consequently, rule the market. The tin smelters, a very few in number—perhaps, not more than half-a-dozen, can easily meet and set the price of the miners' produce, which the miners must take. The same with copper ore, the miners must take the highest ticket, be what it may, the smelters at a previous meeting fixing the standard, the miners not having a voice in the matter. The fact is, it is a one-sided trade, and the smelters are the only ones to get rich. Where can another trade be found where the seller is bound to take the price of the purchaser, and cannot withdraw after exposing his goods for sale? And Echo answers—Where?

This is the first cause why capital is not protected, and the chief reason of so much poverty

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scribe to a joint-stock bank, to be established in the county of Cornwall, each mine paying to the bank £1000, to be withdrawn if the mine should stop. Then let the bankers be the hucksters of your produce, giving you an advance on your ores until you can agree for price with the smelter; or let the bankers' agent sell the ores, giving you the balance it produces. In this way miners would have a voice in the sale of their produce, and there is every encouragement to take this step. No doubt smelters and their agents will not let their position as regards foreign ores—will tell you they can do without our native ores; but do not believe them, they cannot do without our ores. Where could the enough be got without Cornwall? And, as for copper, they cannot do without our native ores. The smelters can neither get the quantity required nor the quality without their ore. Indeed, miners have nothing to fear; it is in their power to exterminate the old system of marketing, and properly protect their property, making mining a safe and profitable investment. But let me not forget the workpeople—the sons and daughters of toil. Would you ask why they are so badly paid? I answer, this is a great measure owing to the system of mining. Most mines are prosecuted underground by what is called tutwork, or at so much money per fathom. Now, suppose there are six men to drive an end or level; these men well understand that, although they have so much per fathom, they must get but so much money in a month (say) £1, and hundreds of them do not get 50s. The consequence is, that if the workmen strike a piece of soft ground they must lay nearly idle—they must not do more than will realise the above sum. If, then, the amount of work done produces 10 tons of ore, the amount of work that could have been done would yield, perhaps, 20 tons of ore. Besides the expenses are going at the surface, whether you raise 10 or 20 tons of ore. This system makes the men poor, and oftentimes makes a mine poor that might have been rich. In conclusion, I advise miners and those interested to agitate for an alteration in the system of mining and marketing the ores, and should success attend their endeavours to amend the system they will confer a benefit on the county in particular, and to the country generally.—*Battersea, Feb. 6.*

JOHN THOMAS.

FRANCHISE POLITICAL FOR PRODUCTS TERRITORIAL.

SIR,—I advise your readers to exercise all their influence and power to procure, from Parliament, effect to the following right:—County vote to every shareholder in every company, deriving 40s. per annum income from any variety of product of subsoil as well as of soil: 40s. per annum from lands in fee give still the feudal franchise. My present object is to indicate the extent of that right to every individual who, by a grant of any nature or character, is empowered to possess himself of themselves of the diverse materials of, in, on, or under rock, land, and water, and to dispose of the same absolutely, as being the property of the grantees, proprietaries, procurers, producers, &c. Refer to your list of companies getting and selling minerals, and refer to "The Public Companies' Directory" for proprietaries procuring and selling other materials of territorial character, &c., and it will be seen, and must be admitted, that all such proprietaries are severally entitled to county registry for representation-parliamentary. This right is but a just accompaniment to the Limited Liability Act for promoting and protecting association mining and like industrial undertakings. It is too absurd to assume objections to this kind of qualification. Polity and equity require that the non-resident proprietary industrial should, for their possession, investment, and contribution to the State purpose and progress, be on political equality with the residential proprietary and with any other labourer, who is to have the right of vote for his £1. per annum rent only of habitation of any super-tenure or character. Be true and unite, for the right to which I invite. Put the point in Parliament, and you must succeed on it. G. T. WHITINGTON.

SOUTH CORNWALL—WHEAL GRENVILLE.

SIR,—In last week's Journal a report was given of a meeting of the South Cornwall Mining Company, held at St. Austell, on January 22 last. In connection therewith, my name appears in such a way as to lead to the conclusion that I had reported on the property and attended the meeting. In order to set this matter in its true light, that no parties may be in error respecting it, I have to say that I know nothing of the case but what appears in your report.

A word in passing about Wheal Grenville, just to say that I think all reasonable miners would be satisfied with our report of that mine, if the committee thought well of publishing it, but I presume they are not under an obligation to do so merely to satisfy the curiosity of gentlemen who have no interest in the mine. Dolcoath Mine, Camborne, Feb. 7.

CHARLES THOMAS.

PROSPECTS IN THE CAMBORNE DISTRICT.

SIR,—Although the present low price of tin operates seriously against the tin mines of the county, notwithstanding TINCROFT still holds as good a position as ever, having last week declared a dividend of 12 per share, or 6000£ profit for the last six months' working, besides making a great outlay for the necessary alterations of the dressing-floors and skip-roads, to discharge the stuff from the shafts; the same rate of dividends will, however, be continued, irrespective of the present depressed price of its produce. This is of itself a good proof of the *bonne fide* character of the property, and is after all the best report of its present and prospective state that can well be furnished. It, therefore, affords me great pleasure to say that I have for a very long time foretold respecting this property is fast being realised. It will also be in the remembrance of many of your readers that I have for a considerable period urged the desirability of a purchase in the adjoining mine, ILLOGAN CONSOLS; and having again visited it I am happy to say that my predictions are being verified. In my last on this mine I mentioned that on the lodes of this district, wherever a good gossan was found it was a sure precursor of what may be expected on deeper trials. On the Drift lode, which has been the richest in Cornwall, the adit level, which has been the richest in the world, has been driven for 80 fms. long; a shaft has been sunk on its course 10 fms. below, and for the last few feet sinking it has produced rich rocks of black oxide of copper, but immediately on cutting this ore the water, as usual in such cases, became very powerful; it is, therefore, for a time suspended. The 90 fm. level is being driven into this ground from the engine-shaft, to unwater it, and is now within 7 or 8 fms. of where the shaft will come down; within the last few feet driving very fine ore has made its appearance. The 30 fm. level is also being driven east on a large lode, full 5 ft. wide, and within the last 6 ft. driving they have met with splendid stones of ore. Both these ends are showing unmistakable evidence of the near approach to a deposit of ore. These ends will be driven under the shaft, and a communication effected by means of a rise, in doing which, with such prospects before them, and in such a rich district, it is impossible to overrate its importance; and what makes this ground more interesting, and consequently valuable, is that it is between the two champion cross-courses of the district—Tincroft and West Basset: indeed, all the lodes of these mines made very rich between these two points, which enabled them to divide immense profits among the shareholders; and considering that the lodes here are large and embedded in granite, similar to the productive ground of this great district, and altogether under the same circumstances, I cannot but believe that corresponding deposits of ore must follow on deeper development. I am strengthened in this belief from the fact of such fine rich specimens of copper being found in the shaft sinking on the gossan referred to. This is not the only point of importance shortly to come off in this mine, for in the western part in the 40 fm. level a cross-cut is being driven south, to cut some of the most productive lodes ever discovered in the county: suffice it to say the Dolcoath counter lode, which has produced such a fabulous amount in that mine, and the East Carn Basset lodes, are all comprised within the limits of this adit, and are within a very short distance of being reached; these lodes have produced immense riches, both east and west of this ground, for miles in length, and I see no reason whatever ("judging from the composition of the ground, which on being compared with that in which the rich deposits occur proves itself of the same class of mineral rock") why similar results should not be the case here; this, however, will shortly be proved, when I feel sure the shares will be eagerly sought after at a very high figure. The present low price (10s. to 20s.) is attributable only to the general depression of mining property; it, therefore, affords a chance for the investor to reap such a reward as is seldom met with. In my next I shall be able to give some information on the LODES, being about to visit them again.—*St. Day, Camborne, Feb. 5.*

CHAS. BAWDEN.

THE HELSTON DISTRICT—PENHALE WHEAL VOR TIN AND COPPER MINES.

SIR.—Penhale Wheal Vor Tin and Copper Mines are situated in the parish of Breage, and in the immediate vicinity of the Great Wheal Vor Wheal Metal, which, as a tin mine, is the richest in the world. The lodes in Penhale are parallel with those in this celebrated mine, traversing the same channel of ground, and between the same cross-courses. It is worked by a first-class company, on the Cost-both System, and is divided into 4000 shares. The committee of management (Mr. W. Batty, secretary), make their calls in perspective, and are thus enabled to provide suitable machinery, and in good time for the proper development of the mine: this is shown by the fact that in the last four months a 60-inch engine has been put to work, and the mine forked 35 fathoms under the adit level, notwithstanding the great influx of water, consequent on the exceedingly wet season with which we have been visited. There is also a steam-stamp in full operation. We mentioned some time since, under the head of the "Cornish Mine Share Market," that the mine was being developed in a spirited manner by the manager, Captain Chappel. About 12 pairs of tributaries are employed, working at an average tribute of 10s., and getting good wages. The tin floors, &c., are laid out on the most approved and economical principle, and the manager expects soon to send a good batch of tin to the smelting-house. This mine is thought a most excellent investment, and that the time is not distant when it will take its place among the dividend mines of Cornwall.—*Penzance, Camborne, February 8.*

A. E. AND X. V. PRINCE.

WYFIA COLLIERY, MOLD.—This company are now sinking their engine pit with great dispatch down to the Cannel seam—4 ft. 2 in. they bored into in 1862 which is said to be all pure Cannel. The sinking, which is now 50 yards below the main coal, bears out the section of the boring, and promises important results when they reach the Four-feet coal and Cannel seam. Much anxiety is felt as to the result, because this is the first trial made in sinking for Cannel upon the range of coal east of the great throw-down fault of 130 yards, which separates the Mold coal field, where the inferior Cannel has already been sunk to. The Wyfia belt of coal runs in a direct line to Leeswood, and is only separated from it by the narrow vale at Llangoed. Should the curly Cannel be found here it will give an immense value to the Wyfia estate, and also to the adjoining Argoed Hall estate. It is expected the Cannel will be reached about the end of April.

FLINTSHIRE OIL AND CANNEL COMPANY.—Can any of your correspondents inform me whether it is likely that the company will find any of the new North Wales wealth in their Trydlyn Colliery? I allude to curly Cannel, and my reason for asking is because the directors have been leading the shareholders to believe that they have a mine of this valuable article, but still it never makes its appearance.—*Cymru.*—[We have made enquiries, and the personal knowledge of our informant of the Flintshire Oil and Cannel Company's coal field at Trydlyn, and its proximity to the already-proved Cannel land of Leeswood Green and Coed Taun Collieries, leaves no doubt that the valuable curly Cannel will be found in their pits as soon as they are deep enough to reach the seam. We can make some allowance for the impatience of our correspondent, for we see no reason why the sinking of a couple of pits should take so long to complete.]—*Flint County Chronicle.*

HOLLOWAY'S OINTMENT AND PILLS—RHUMATIC AND NERVOUS PAINS.—The chilly mornings and evenings provoke these tortures in constitutions susceptible of such maladies. Nothing affords so much relief as Holloway's ointment well rubbed upon the skin after repeated fomentations. Thousands of testimonials bear witness to the wonderful comfort obtained from this safe and simple treatment, which all can adopt. Holloway's ointment, assisted by a judicious use of his pills, is especially serviceable in assuaging the sufferings from cramps and other muscular pains, whether they be acute, chronic, external, or internal. It is earnestly recommended that every sufferer from such pains should give to Holloway's remedies a few days' trial, which will fully convince the invalid that a cure will be the reward of continued perseverance.

MODERN MARINE ENGINEERING.*

The importance of steam navigation, whether for war or commercial purposes, is now well known, and the advantage of obtaining practical information must always be appreciated by all those interested in each particular branch of science. The work now before us embraces an entirely new feature—practical information imparted by the leading firms of the day. The author wisely claims due attention to this fact in the first page, where he states "that the most eminent firms are the least suspicious of dishonesty in those they trust." Further on we are made acquainted with the author's intentions, which are strictly of a practical character, thus—Each portion of the most important arrangements will be carefully explained and illustrated, &c. Attention is next given to Paddle-wheel Engines. Each type of engine—actually proven—is lucidly explained; side levers, vertical, parallel motion, side guides, inverted cylinder, return connecting-rod, double cylinders; and, lastly, the now well-known oscillating type. Each arrangement is consecutively treated, and the merits and demerits made clear in a practical style which, by-the-way, is too often rare in scientific works.

We are nextled into the mysteries of the principles of the paddle-wheel, after which three pages are devoted to Screw Engines: vertical, horizontal, and angular types are fully explained. On the tenth page commences a well-digested description of "Common, Mangin, and Griffiths screw-propellers." Twin screw propulsion next follows, with its advantages made clearly clear. The advantage of using steam expansively has been well proven in Cornwall by our mining engineers, and their marine brethren may be said to have followed in their steps. Mr. Burgh being, doubtless, cognisant of the adoption of expansion engines on land as at sea, opportunely gives us a want in imparting any design; and, to the credit of the author, it can be truthfully stated that the plates in this work are the most effective yet offered to the public. The colouring is clear, and the hues of the kind recognised by the profession; being, in fact, actual working coloured drawings of engines by the firms of Messrs. Maudslay, Sons, and Field, and Mr. J. F. Spencer, Newcastle-on-Tyne. A bold working scale is preserved, and the different materials readily recognised. As Mr. Burgh is now an author of some repute, we may with confidence recommend the number before us without fear of disappointment in future issues.

* "Modern Marine Engineering applied to Paddle and Screw Propulsion." Illustrated with thirty correctly coloured plates and numerous clear wood-cuts. By N. P. BURGH, Engineer. London: E. and F. N. Spon, 16, Bucklersbury.

The Irish Industrial Magazine: for February. No. II. Price 1s. Edited by E. H. WADGE, F.G.S.

The present number will be perused with great pleasure, and it will be found, as might have been anticipated from the Introduction by the Editor, and from the array of contributors, in No. I, that the different industrial resources receive that elucidation and advocacy they so eminently deserve. The subject of Mining occupies a considerable portion of the volume, and the ability exhibited shows what discrimination the Editor displays in familiarising so difficult a subject to strangers or prejudiced individuals.

After showing that the sales of copper ores from Devon and Cornwall for the quarter ending Dec., 1865, amounts to 197,751. 3s. 6d., he says:—

"These indisputable facts, though they have no positive bearing on Irish mining industry, have so relatively, proving the enormous revenue derived by two English countries only from their copper mines. It is remembered, also, one fifteenth part of the above amount, or more than 13,000£, goes into the land proprietors' pockets, without effort, or the expenditure of one shilling, on their part, for copper ore alone, entirely irrespective of the tin or lead raised therewith."

If this be not an *argumentum ad hominem* we do not know what can be deemed one. Again, after stating the sales of copper at Swansea of Irish ores on Jan. 9, 1866, and at Redruth on the 11th of the same month, as well as comparing the previous similar sales, he gives these conclusive remarks:—

"We insert the above tables to demonstrate the truth of the statements made by the various writers in the Irish Industrial Magazine on the capabilities of the Irish copper mines, and the surprising value of their ores in comparison with the average of British produce. By looking over these statistics, it will be found that we have selected sales of only two days' difference in point of time; therefore, no very great change in price can be supposed to have affected the market values. It will also be seen that we quote the results, in a condensed form, of the preceding sales, presenting very nearly the same values. Amongst the Swansea sales the only Irish mines represented are the Berehaven and the Ballycunnink, the ore of which yield 10½ per cent., and 18, 18s. per ton; whilst the averages of Devon and Cornwall only come up to 6½ per cent., and 17, 15s. per ton. On making a further comparison it will be seen that the prices of Irish ores are nearly double those of Devon and Cornwall; whilst the richest copper ores in the world only exceed the Irish in averages by one-third. Be it remembered also that these foreign ores are wrought at a great cost, and entail a large outlay by way of freight. We think we could not more forcibly or effectively illustrate the high value of Irish copper mining industry, where practised, and this must prove more satisfactory than any scientific or theoretical conclusions could do, that mines in Ireland have a fair chance of proving profitable at great depths, when managed with skill and energy, and by judiciously selected directors and officers.—N.B. Berehaven and Ballycunnink are the deepest copper mines in Ireland, thus disproving the false theory that the copper does not hold in depth."

We think stability itself would be convinced of the truth of the Editor's opinions; and well indeed would it be for Ireland had she many such able expositors of her mining capabilities.

An excellent and elaborate report of the mines in the property of Lord Bandon in the various writers in the Irish Industrial Magazine on the capabilities of the Irish copper mines, and the surprising value of their ores in comparison with the average of British produce. By looking over these statistics, it will be found that we have selected sales of only two days' difference in point of time; therefore, no very great change in price can be supposed to have affected the market values. It will also be seen that we quote the results, in a condensed form, of the preceding sales, presenting very nearly the same values. Amongst the Swansea sales the only Irish mines represented are the Berehaven and the Ballycunnink, the ore of which yield 10½ per cent., and 18, 18s. per ton; whilst the averages of Devon and Cornwall only come up to 6½ per cent., and 17, 15s. per ton. On making a further comparison it will be seen that the prices of Irish ores are nearly double those of Devon and Cornwall; whilst the richest copper ores in the world only exceed the Irish in averages by one-third. Be it remembered also that these foreign ores are wrought at a great cost, and entail a large outlay by way of freight. We think we could not more forcibly or effectively illustrate the high value of Irish copper mining industry, where practised, and this must prove more satisfactory than any scientific or theoretical conclusions could do, that mines in Ireland have a fair chance of proving profitable at great depths, when managed with skill and energy, and by judiciously selected directors and officers.—N.B. Berehaven and Ballycunnink are the deepest copper mines in Ireland, thus disproving the false theory that the copper does not hold in depth."

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spectus of any new concern deserves a more careful study, or one in which there is such a total absence of exaggeration in the description of its merits, by reliable and experienced agents. For himself, the writer believes that it will at once take rank amongst the most lucrative of that class of investments, and he speaks the more confidently of these vital points from having visited the quarries at the end of last year, and becoming thereby fully cognisant of their merits. The essential points in a slate quarry to ensure dividends almost in perpetuity are, that the material should be easily converted into slates and slabs of first-rate quality; a practical mind to direct all the operations, and labour cheap are amongst the essentials to success; whilst the demand for the manufactured article is absolutely unlimited, and contracts sought to be made, both for British and foreign consumption, for years to come, and, of course, at steadily advancing prices. The financial construction of the company is, that for the first year 5 and the second 7½ per cent. interest is secured to investors by due upon paid-up capital, and the calculation made upon the most solid basis is, that when the quarries arrive at the dividend state, by or before the third year of working, the profits will be at least 30 per cent. No attempt is made by the writer to disguise the fact that experiments have heretofore been made upon the credulity of the public in a number of slate concerns, where the chances of success have been entirely mythical, and serious losses of capital having ensued accordingly, it is suggested that such unfortunate speculators, although they may not be large in point of numbers, are more interested in a *bond fide* concern, like the Imperial, than that other portion of the public who at present have not ventured in this new field of enterprise, which the writer assures them they may do with the certainty of a large and continuous income, spreading over a series of years, commensurate with the next to inexhaustible quantity of slates to be operated upon in these quarries.

FRIDAY.—Shares to buy on the mining market:—EAST LOVELL, NORTH TRESKERRY, CHIVERTON MOOR, GREAT NORTH LAXEY, NORTH CHIVERTON, WHEAL VOR, TINCROFT, FRONTINO, DING DONG, and the ROSEWARNS. There being no change in the copper standard this week, copper shares may not further decline in value *pro tem.*

From Mr. EDWARD COOKE.—There is a slightly better tone in the market, and it is to be hoped that business will improve as the spring advances. A large amount of business has been done at GREAT NORTH LAXEY. A rumour—unofficial—was very improperly circulated, to the effect that the lode in the shaft had improved to the extent of 6 to 8 tons of lead per fathom. No one would more rejoice at the realisation of this than I should, but I regret to state that there was no truth in the report so currently propagated—in fact, the lode has rather receded in value since the previous advice of the manager. Great North Laxey will, undoubtedly, become a good property when properly developed; but when such erroneous reports are circulated for mere market operations it tends to bring discredit on the mining market generally. SOUTH DARRIENS have been in good demand, and have advanced in price. For the past 12 months I have constantly kept this mine before the readers of the Journal as a property that was not appreciated according to its merits. It has been brought by prudent management into a profitable state, with every probability of being a permanent dividend mine. Owing to the decline in the price of tin, GREAT WHEAL VOR and TINCROFT shares have receded in price. I believe I am correct in saying that, notwithstanding the low price of tin, both of these mines will continue to pay good dividends to their shareholders. The same remark applies to EAST LOVELL, which mine is looking well; there is every prospect of its continuing for many years to give good profits to its shareholders. Mr. DAY UNITED MINES are under a cloud just now, as well as being under water. The great influx of water from an unknown source during the past month has placed the company in a difficult position, and to extricate themselves a call at least 2½ tons per share ought to be made. It will be remembered that at the last general meeting I strongly urged the propriety and almost absolute necessity of the making a call, as there was a debit balance—if everything were charged up fairly—of some \$5000. My motive was constrained by an anonymous writer in the Journal into a sinister one—that I might be enabled to buy the shares cheap. The shareholders left the meeting a little pleased that no call was made, although, as I then told them, they left the room with the company \$5000, in debt; and, as a proof of that assertion, the debit balance is now \$8000. The Cost-book system—as very properly stated by the honourable M.P. for St. Ives at the East Providence meeting—is an excellent system when strictly adhered to. At every meeting I attend I always use my humble influence to make a sufficient call to cover all liabilities, and that is the strict Cost-book Principle.

Mining is now undergoing an ordeal of depression such as has not been witnessed for a long period. This arises from various causes—the low price of metals, together with an absence, for a very long period, of those brilliant discoveries that tended to enrich many Cornish families some 15 to 20 years since, when Wheal Basset, Wheal Bassett, South Frances, and several other mines were giving large dividends. I am not, however, disheartened and out of hope that we shall yet see a recurrence of prosperity to the mining interests of this country. The spirit of enterprise is inherent in Englishmen, and there will not be wanting that spirit to develop to a successful issue many of our good progressive mines, such as North Chiverton, Chiverton Moor, Caldebeck Fells, Great North Laxey, North Treskerby, Great East Lovell, East Wheal Grylls, and Illogan Consols. The latter mine bids fair to attain a very prosperous position, although at present almost unnoticed. Then with regard to other mining interests of the country—coal and slate. An opportunity has been offered to the public to avail themselves of embarking in the former in the HOLLYBUSH COLLIERY AND COKE WORKS. They have not been slow in availing themselves of this opportunity, and it will soon be seen that they have made a sound investment, and that their dividends will far exceed the amply guaranteed minimum interest of 10 per cent. Referring also to slate quarries, I do not consider a notice of them at all irrelevant to that of metallic mining. The slate trade of this country is becoming of such magnitude that the majority of capitalists have no idea of. Wherever good quarries are found, they cannot fail, under good management, to enrich all those who invest in them. That the IMPERIAL WELSH QUARRIES partake largely of this character there can be no doubt whatever upon the minds of anyone who has seen them. I feel persuaded that if all who have money to invest—with the view of getting a large return for it—we to see the Imperial Welsh slate and Slab Quarries, or to send independent agents to inspect them, not one person would hesitate to secure as large a stake as they could possibly get. According to the estimation of every practical man who has seen the quarries, they are likely to be highly productive of valuable slate and slab for almost an indefinite period, as they are, practically speaking, inexhaustible. For both these articles there is an unlimited demand, at highly remunerative prices: the quality is excellent, and far above the ordinary description. As a sound and safe investment in every respect, I do most sincerely recommend the Imperial Welsh slate and Slab Company (Limited) to the notice of everyone seeking to employ their capital to advantage. The property is situated within easy access, and an inspection of it is encouraged by those interested in bringing it before the public.

From Mr. JAMES HUME.—The Mining Market has exhibited a better tone within the last few days than for some time back; and as the days are now opening, and drier weather may be anticipated, we may expect a considerable revival of business. It may be imagined that many old supporters of mining have been allured of late years by the specious promises of banking, finance, and other limited companies: but as many of such companies are now being severely proved, and as shareholders are becoming more and more convinced that their confidence in them has been misplaced, we may expect not only a return of the renegades to the legitimate business of mining, but a large flow of fresh capital besides. There is no pursuit so prolific of prizes, or which we have just now a notable example in the CHONTALE GOLD AND SILVER MINING COMPANY (Limited). These shares, 30s., only paid, have risen in three months to nearly 5s. per share; the actual cash called up amounts only to \$9,000., but the property has attained a market value of upwards of \$200,000. Many of us who are acquainted with the mining districts of Cornwall know that there are several of such prizes there in embryo, and a little time and development only wanted to produce them. The aim of the investor ought to be to secure such shares whilst they are low, and by such means reap the full benefit of their increasing value. There is one property in particular which I consider must become an early prize—SOUTH CONDORROW. The shares are at a very moderate price, and obtainable, many being in dealer's hands. The mine is being developed most satisfactorily; from 40 to 50 fathoms of good ore ground, proved by the 20 and 30, and the 40, though not quite up to this ore, contains already a branch of rich copper ore, indicating unmistakably that a great improvement will soon take place. The samplings of ore now take place every two months, and each parcel continues to exceed the previous one. The next sale will probably exceed 600t., which will be about 250t. in excess of the preceding sale. No further call is expected. CHIVERTON MOORS have receded to 5½, 5¾, but will doubtless rally after the meeting on the 16th inst. A slight enquiry exists for EAST BASSER, and a good demand for EAST GRENVILLE shares.

From Mr. LELEAN.—There has been a considerable subsidence of the quietude that characterised the stock and share markets on several days last week and the week before, and for two or three days past a better and more cheerful tone has exhibited itself. The healthy condition of the trade of the country, in almost every branch of business, tends in a great measure to neutralise the effects of the adverse circumstances to which individual firms and companies have succumbed, and to limit the mischief that would otherwise result from the exaggerated rumours that are so persistently put into circulation by the speculators for a fall in prices. It must be confessed that they have had it almost all their own way for some time past, as a comparison of the prices in the share lists of the present week and those of a month since—especially of banks and financial companies—will show. I do not think they will maintain their vantage ground much longer; indeed, they are already coming down. British stocks are exhibiting more firmness, though prices are low, in consequence, no doubt, of more profitable investments. Foreign securities are also looking better, and banking and financial shares are some of them exhibiting a disposition to rise. Everywhere, in fact, the public confidence is recovering itself, and there is a fair indication of increased business being done by the general public. There is little to complain of in the business in mining shares, which has, indeed, sustained itself bravely against the depressing circumstances affecting almost every other description of investment business. During the week there has been a fair demand for Central Snailbeach, Trelyon, Chiverton Moor, Clifford, North Treskerby, East and Wheal Grenville, East Caradon, Great Laxey, South Chiverton, Great North Laxey, Rosewarne Consols, and Chontale: some of them have improved in price, especially Great North Laxey. The reports from the progressive mines that have for some time past commanded most attention continue to be satisfactory, exhibiting only those unimportant changes, sometimes one way, sometimes another, that are always incident to such undertakings. One can find nothing particular to say of mines the workings in which proved favourably, but with very marked results, as is the case in South Chiverton, Chiverton Moor, Wheal Chiverton, and Great South Chiverton—a line of mines, in one of the richest districts in Cornwall—Central Snailbeach, Rosewarne Consols, and two or three others, all of which progress, under unexceptionable circumstances, towards profitable results. There was never, perhaps, a larger choice of good speculative mines than now presents itself to investors of moderate means, and the investment of from 50t. to 200t. or 300t., under good advice, cannot fail to turn out very profitable within the next 12 months—in some instances within six months. Even within the last fortnight the prices in some progressive mines have so far improved, and are improving, that I should be glad to re-purchase shares I have persistently urged upon my friends and clients, at a material advance upon the price at which I have induced them to buy. And it will be the case in some other mine shares that are now to be purchased at a very low figure.

Of dividend mines I would mention WEST CHIVERTON and GREAT LAXEY especially just now, inasmuch as the shares are sure to improve in the market almost immediately. At Great Laxey the communication between Dumbell's and the rise in the 110, where the lode is very rich, will now be soon effected, and this, with the improvement exhibiting itself at two or three other points in the mine, can scarcely fail to increase the price of the shares, as it will certainly augment the available resources of the mine. At their present price, however, the shares return the purchaser upwards of 10 per cent. in quarterly dividends, as surely and as regularly paid as those upon Government stock. At West Chiverton they have not yet reached the lode in the 100, but the water issuing from the end indicates it near, and they are daily expecting to reach it. In the 90 west there is a further improvement; the lode is said to be quite 15 ft. wide, and rich for lead throughout. The 80, west of Burgess's, is still looking well, and is driven within 22 ft. of Batters's shaft. Rich, therefore, as the mine is at present, its riches will be considerably augmented at an early date, and the shareholders are reasonably expecting an increased dividend, which the directors could undoubtedly pay, without at all jeopardising that character for prudence which they have fairly earned. The improvement in the shaft at GREAT NORTH LAXEY, which has raised the price of the shares from 25 to 30 per cent., will carry them still higher, increasing, as it does, the confidence that was previously felt in the mine turning out well, and creating a reasonable expectation

of early returns. In addition to the mines I have thus noticed, as inviting immediate attention, I may mention EAST LAXEY, EAST SNAILBEACH, SNAILBEACH, and NORTH PHOENIX.

FOREIGN MINES.

The directors of the PORT PHILLIP AND COLONIAL GOLD MINING COMPANY have received the following telegram, via Suez, from their resident director, Mr. Bland, at Clunes, giving the result of the months of November and December:—Four weeks' return, Nov. and Dec.—Quantity of quartz crushed, 4650 tons; yield of gold per ton 6 dwt., 10 grs. Port Phillip Company's proportion of profit, 1200t. Remittance, 600t.

ST. JOHN DEL REY.—The directors have received the following, dated Morro Velho, Dec. 29:—Produce, second division of December, 10 days, 20,213 oitavas; yield, 12,061 oitavas per ton.

ANGLO-BRAZILIAN GOLD.—Capt. T. Treloar (Jan. 1) reports—On Dec. 26 a remittance of 3508 oitavas of gold was forwarded to Rio. This, it is pleasing to note, exceeds that last sent in September by 955 oitavas. The produce to the 20th amounts to 899 oitavas, being the largest amount of gold taken out in the same number of days.

DON PEDRO NORTH DEL REY GOLD.—Capt. T. Treloar (Jan. 1) writes—On Dec. 26 I forwarded for delivery to Messrs. John Moore and Co., 11,776 oitavas of gold, inclusive of nuggets weighing 102 oitavas, one of which being 22 oitavas. This remittance shows an increase of 2961 oitavas, as compared with the previous one. The produce to the 23d ult. amounts to 2426 oitavas.

EAST DEL REY.—Capt. W. Treloar, Sao Vicente, Dec. 30: In my last I informed you that we had cut the lode in the cross-cut south of the bottom of the experimental shaft. This so far is opening out very well, and from what has been seen of it, it is of a promising description, and the samples taken from it have produced as well as could have been expected. After cutting through the lode, I will have a fair sample of the ores tried, in order to make a rough estimate of its quality. I am in hopes after the holidays of the season are over that we shall not be inconvenienced for want of hands, as the week or two previous the labourers some days came in abundance. The lode in the sump-shaft and in the stopes adjoining is of much the same character as when last referred to. We have commenced driving No. 4 level west from the bottom of the mine; the lode is about 6 feet wide, and of a fair quality, but is very hard, and the progress is consequently slow. But little alteration has taken place in the lode in driving from the Tatio, or in Teixeira's winze, since last reported upon. A few hands have been occasionally employed at Bernardo's in removing some rubbish, to enable us to take away some lode that is standing against the north side. No. 1 level west has been advanced 5 feet. The driving of the adit level has been resumed, and 6 feet driven. We have a few hands occasionally employed in driving Smithy level. At Fawcett's shaft the progress in sinking has been pretty good; layers of lode and killas continue to intervene throughout the whole width of the shaft. The stone at present is poor, but as we gain in depth the lode will become more compact and productive. Captain Treloar also says that he hopes soon the returns will be more regular and more cheering. He states—"I have no doubt as to the ultimate success of the Sao Vicente Mine, although it will take longer than I calculated to put things in order, as all the machinery found in the establishment must be replaced by new. The works cannot, considering the limited European force, be expected to go on with the same dispatch as in a mine where a large number of mechanics are employed, still the work turned out of hand is not to be surpassed anywhere." The directors have received by this opportunity a remittance of 4648 oitavas of gold, the produce of the month, 1309 oitavas.

ALAMILLOS.—C. Tonkin, W. Nute, N. C. Morcom, Jan. 27: There is a strong joint crossing the 4th level, west of San Rafael shaft, which has injured the lode. The lode in the 4th level, east of same shaft, is strong, and moderately productive. The cross-cut south, from the same shaft, is very hard. The 2nd level, east of San Francisco shaft, is improving, and now opening tribute ground, worth ½ ton per fathom. The 2nd level, west of same shaft, is unproductive, and hard for driving. The 1st level, west of same shaft, is suspended. The 2nd level, east of San Enrique shaft, has a promising appearance, and is opening good tribute ground, worth 1 ton per fathom. The 1st level, west of San Rafael's shaft, is suspended. A very good piece of ground has been opened in the 2nd level, east of La Magdalena shaft, worth ½ ton per fathom. The 3rd level, east of Taylor's, and the 3rd level, east of Antonio's winze, are holed. The 3d level, west of Taylor's winze, is improving, chiefly composed of carbonate of lime, gossan, and lead. The 3rd level, east of San Adriano shaft, is being driven to meet the last-named end, but is on the south part of the lode. The 3rd level, west of same shaft, is unproductive. During the past month a long piece of ground has been opened in the 2nd level, west of San Adriano shaft, worth 1 ton per fathom, but it has failed this last few days. In the 1st level, east of San Yago shaft, the lode is large, strong, and spotted throughout with lead. In the 2nd level, east of Crosby's shaft, there is a very kind and productive lode, worth ½ ton per fathom. The 2nd level, west of same shaft, is holed to the end driven east from Jose's winze. The cross-cut, south of same shaft, is suspended, on account of the water being in. The 2nd level, east of Jose's winze, is holed to the end driven west of Crosby's shaft. Shfts and Winzes: The lode in Taylor's shaft is large, and contains good stones of ore. La Magdalena shaft will be put north to intersect the lode. The 75, west of Warne's shaft, is chiefly composed of calcareous sand, and lead, worth for the latter 2 tons per fathom. Armino's winze is situated west of San Adriano shaft, and in advance of the 3rd level; the lode is small and poor. Domingo's is commenced east of La Magdalena shaft, and is off the lode at present. General Remarks: The weather is favourable for surface work, which is being carried on regularly. In consequence of the excessive breakage of the boilers of the western engine, we have suspended that section of the mine while the boiler-maker prepares the new large boiler to replace them. The stopes throughout the mine are looking much as usual. We estimate the raisings for February at 130 tons.

LINARES.—Jan. 27: South Lode—West of Engine-shaft: The men are making great progress in the cross-cut south of the 120; there remain about 100 yards, or three months' driving, to reach the lode. The 75, west of Warne's shaft, is chiefly composed of calcareous sand, and lead, worth for the latter 2 tons per fathom. The lode in the 110, west of engine-shaft, is wide and strong, with lead throughout, worth ½ ton per fathom. The 75, east of Warne's shaft, is wide and strong, and letting out a large quantity of water. The 61, west of Crosby's shaft, has fallen off during the past week. The lode in the 51, west of Game shaft, although unproductive, is much more promising than it has been. East of Engine-shaft: There are good stones of lead in the 110, east of engine-shaft. In the 95, east of Shaw's shaft, the lode is of immense width (9 feet) but, with stones of lead throughout. The 85, east of Thorne's shaft, is much improved. The south part of the 85 is passing through a piece of disarranged ground but, judging from the 75, there is a good lode ahead.—Shfts and Winzes: Crosby's shaft is very difficult to sink. Thorne's shaft is going down in a promising and productive lode, worth ½ ton per fathom. In Cabrera's winze the ground is very broken and disarranged.—General Remarks: The tribute department is looking much as usual, and the weather is fine for the surface work. Our machinery is in good working order. We estimate the raisings for February at 300 tons.

FORTUNA.—Jan. 27: Canada Incosa—West of Engine-shaft: In the 110, east and west of El Clavel sump-shaft, very little progress has been made, owing to the frequent breakings of the horizontal rods. The lode in the 100, west of O'Shea's shaft, is small. In the 90, west of Henty's shaft, the lode is large and kindly, but the ground is harder than usual. The lode in the 80, west of the same shaft, is very compact and regular, worth ½ ton per fathom.—East of Engine-shaft: The 70, west of Kennedy's shaft, is very irregular, composed of sulphate of lime, quartz, and lead ore. The lode in the 70, east of Lownde's shaft, is split into branches, containing stones of lead, but not enough to value. The 55, east of Carro's shaft, has a kindly appearance—lode worth ½ ton per fathom. We hope shortly to communicate the 45, east of Carro's shaft, with Cortez winze, when we shall be able to make better progress in driving. The 30, east of San Tomas shaft, continues to open productive ground, worth ½ ton per fathom.—Shfts and Winzes: We are making good progress in Carro's shaft. The lode in Mateo's winze is large, with good stones of lead, but not enough to value. The lode in Baldado's winze is now very regular, and satisfactory progress is being made in sinking.—South Lode: In the 30, west of San Pedro shaft, we expect an improvement. The lode in the 30, west of same shaft, is unproductive. The 40, east of Cristobal's winze, is looking more kindly than it was. The lode in the 30, west of San Federico, is large and open, composed of quartz and a large quantity of peroxide of iron, intermixed with lead. The lode in Tejada's winze is large, chiefly composed of quartz and lead.—Los Salidos Mine: The 90, west of Morris's engine-shaft, is holed to Castilla's winze, and will be continued west of same, as we have every reason to expect good tribute ground. The 75, east of Buenos Amigos shaft, has again improved, and is now opening a piece of ground, worth 2 tons per fathom. The 65, west of same shaft, is not so good as it was. The 55, west of San Carlos shaft, is very hard for driving. The 45, west of same shaft, shows indications of improvement.—East of Engine-shaft: The 90, east of engine-shaft, is opening a valuable piece of ground, worth ½ ton per fathom. The 75, east of Cologan's shaft, is improving, and is getting out of the influence of the cross-course alluded to in our last. The 65, east of San Pablo's shaft, continues to open good tribute ground, worth 2 tons per fathom. The ground in Morris's shaft is more favourable than it has been, and the men are getting on well—the lode is worth 1 ton per fathom. San Gabriel's shaft is still looking well, being worth 2 tons per fathom. The lode in San Carlos shaft is rather small, and the ground troublesome for sinking. In Jose's winze the lode is compact and firm, and the ground hard for sinking. The lode in Damian's winze is very small. This winze is situated west of Roque's winze, below the 30, and in advance of the 45.

LAGUNA.—Mr. Rule (manager) writes under date Dec. 28:—Torta No. 20, of the usual quantity of 150 cargos, is in the patio, and will in all probability advance rapidly; the weather is remarkably warm for the season, and favourable for a quick reduction.

PONTORIBA.—W. H. Rickard, Feb. 2: Richards's shaft, sinking below the 100 at Roure, is in soft ground, requiring very strong timberwork. The 100, north of this shaft, is in a large lode, 8 feet wide, composed of quartz spotted with ore, producing a little saving work; the same level, south of shaft, is unproductive; the lode is also composed of quartz in a friable state. The 80, south of shaft, is in speedy ground, but poor. The 60 south is passing through a poor piece of ground, but will shortly again enter productive ground. The 40, south of Agnes's shaft, yields ½ ton of ore per fathom. The 20, south of Virginie's shaft, is in soft disordered ground, and poor. The adit level, south of the same shaft, yields a little coarse saving work. The stollen, south of James's shaft, is in speedy ground; the lode is composed of quartz, barytes, and patches of pyrite; the winze sinking below this level yields ½ ton of ore per fathom. We have 14 stoles working in this mine, yielding from ½ to 2 tons of ore per fathom; also 30 tribute pitches, varying in price from 35 to 110 francs per ton of ore per 50 per cent.—Grange: Nosky's shaft has attained the required depth for a 60 metre level; we shall open out and commence driving at once. The 40, south of this shaft, is in soft unproductive ground; the same level, north of shaft, yields a little ore, that will work on tribute. The 20 metre level, in the same direction, is unproductive. We have 8 stoles and 6 tribute pitches, yielding a good supply of stuff. The cross-cut west from La Roncione's is a little stiffer for driving.—Mioche: The two adit cross-cuts west are in hard ground. The adit level north of the 100 is in a large soft lode, yielding a little barytes.—La Brousse: The 20, north of Basset's shaft, is unproductive; in the same level, south of shaft, the lode is split into two parts, which yield together 3 tons of ore per fathom; the adit south opens tribute ground; the winze sinking below this level, north of the little shaft, is poor. Our tribute pitches, four in number, are yielding well. The samplings for this month have amounted to 317 tons.

VAL SASSAM.—During January, at Zospino, the San Giovanni end south has advanced 1'10 metres; the ground is hard, costing nearly 12t. per fathom, but some improvement in this respect may be hoped for when the end shall enter the ground ahead of it. The San Giovanni cross-cut in the past month has, as I led you to hope, reached the first lode it is intended to cut; where cut through it is about 2 ft. wide, containing a little dredge ore, scarcely enough to value. We shall now direct the end towards the second lode, of which something better may be expected. The Nido shaft has reached a depth of 7'40 metres below the shallow adit; the lode in the shaft is large and dredge, and will yield about 1 ton of 50 per cent. lead ore per fathom. The interval between this shaft

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—Jas. Phillips, Feb. 7: The stope in back of the 130 east is worth 3 tons of ore per fm.; and in the back of this level west will produce 2 tons of ore per fathom. The four stope in back of the 115 west are yielding as follows:—3½, 3, 2½, and 2 tons of ore per fm. The lode in the 103 west is 2½ ft. wide, yielding good stones of ore. The two stope in the back of this level produce 2½ and 2 tons of ore per fathom. The stope in back of the 58 east is worth 2 tons of ore per fm. At the engine-shaft, on the north lode, we commenced cutting into the lode, but we find the capes so very hard and troublesome that we think it advisable to sink 1 or 2 fms. deeper before we cut through the lode. In the 75 east the lode is 2 ft. wide, producing good stones of ore; the lode in this level west is 18 in. wide, producing a little saving work. We are driving by the side of the lode in the 62 east.

REDOL-AURE.—Feb. 7: Croft's shaft is still going through the old workings; the ground is very hard for progress. The end driving south-west on St. Vincent's vein is looking better than it has for some time past. We shall sell about 2½ tons of ore in time for the pay.

BOAT HILL.—J. Eddy, Feb. 8: South or Copper Lode: The ground in the end, driving west in the 12, is still hard, and the lode small, from 9 to 12 in. wide, producing some rich stones of copper; we must not expect much improvement here until we get west of the elvan course, which I hope will be accomplished in driving about 4 fathoms further. The lode in the 24, east of Williams's shaft, has improved this last week. The mine in the 32 is still worth about 67. per fm. The stope in the western part of the mine are without alteration.

BRONFLOYD UNITED.—T. Kemp, Feb. 7: We have cut through the south part of the lode, to the west of winze, in the 52, but found no alteration in its character; it continued to produce a little lead, the same as it did all through. The stope to the east and west of winze produce on an average 25 cwt., of lead per cubic fathom. The ground in these stope is not so hard as it was, and the men are making better progress. The ground in the new shaft has considerably hardened since last report.

BRYNFORD HALL.—Thomas Pierce, Feb. 3: This has been our measuring-day, and I am glad to say that some of the pitches look very promising. The 114 yard level east is 2½ yards from the shaft. The vein is 12 in. wide, composed of spar, mixed with lead ore. This is a very good trial, and may be expected to turn out well. The character of the ground is of the best description. The same level west is still hard and poor for ore; the vein is about 3 in. wide. Ac-fer: We have made hardly any trial on the new discovery, as we have been cutting down the sides to make room to have the barrow with us. This is a good trial on this east and west vein, which is in fresh ground altogether, and may be expected to pay well. Another month or two will show something of it. —Grainger's: The 86 yard level, on Ward's vein, is looking much better than it has for a long time. We are through the rock, and nice lumps of lead are to be seen in the forepart to-day. We shall have a trial of this in two days more working. The cross-cut south to intersect Slack's vein is favourable to drive, and we shall cut the vein in 6 or 7 yards more driving, and we may expect to have good ore.

BRYS GWILOG.—F. Evans, Feb. 7: Since last report we have commenced to drive west from engine-shaft in the 107 fm. level; the lode at that point is from 2 ft. to 3 ft. wide, composed of copper of lime and fluor-spar, sprinkled with copper, and altogether promising for lead ore. In the 102 east the lode is all the width of the level, and will produce 1 ton of lead ore per fathom, and improving. In driving on the run in the back of the 90 west there is a strong lode, worth 1 ton per fathom. The 90 east looks pretty well, worth 2 tons per fathom. A sum sinking below this level is in an ore lode, worth 1 ton per fathom. A sum in this level will produce 1½ ton per fathom. A stop behind this end will produce 1½ ton per fathom. In the 75 east the ground is promising for lead, but as yet the lode is principally composed of shale. There is no other change to notice. Our sale to-morrow will be 35 tons of lead ore.

CAPE CORNWALL.—R. P. Goldsworthy, Feb. 7: Saturday last was our pay and setting-day. The following is a copy of our settings, with remarks thereon:—The 100 end to drive east, by two men and one boy, at 57. 10s. per fathom; the lode is large and openning tributary. The rise above the 100, against the 90 winze, by two men, at 57. 10s. per fathom; the lode is large, and producing fair quality tin-stope. The 90 winze to sink by six men and three boys (5 fm. or hole), at 61. per fathom. We hope to communicate with the 100 this month; from present appearances we shall throw open a valuable piece of tin ground. The 90 end to drive east, by six men and one boy, at 61. 6s. per fathom; the lode is 4 feet wide, and opening tributary ground; this end has opened very satisfactorily for a pretty good length.

The 90 stope, by four men, at 57. 10s. per fathom. The 80 stope, by four men and one boy, at 48s. per fathom; the lode produces good stones of tin. The 70 and west, by four men and two boys, at 57. per fathom; the lode is composed of spar, munde, and jasper, letting out more water than usual, which, no doubt, will increase as we approach the great caunter. The 70 stope east, by three men, at 35s. per fathom; the lode is 6 feet wide, producing stamping work. There are two men in the back of the 60 on tribute, at 15s. in 17. In addition to these we have thirteen-fourteen men, fourteen boys, and seven girls employed at surface in mining pools, and clearing away ground for frames, raising stone, spelling tinstaff, and employed at the stumps and dressing floors; seven masons at work on the new engine-house, besides pit and timbermen, engineers, carpenters, sawyers, smiths, &c., which together make a total of ninety-two men, twenty-two boys, and seven girls employed in and on the mine. When the erection of the engine is completed for the purpose of pumping and drawing our present engine will be applied solely for the purpose of stamping, when we hope to make good monthly returns; we shall also be in a position to sink our engine-shaft, and fairly develop the mine. We shall reach the junction of the strata by sinking about 30 fms., which we deem to be a very important point, and we shall also reach the granite in the 90 east by opening about 15 fms. more.

CAMBORNE VEAN.—N. Clymo, Feb. 8: The 262 fm. levels, east and west, are the same as last reported. The 252 fm. level west is worth about 81. per fathom, and is opening up ground that will pay for stopping. We have been putting in two new busses at the stamp to take the stuff direct from the stamps without using strips, and which answer admirably. We sold on the 27th of January 8 tons 5 cwt. 0 qrs. 7 lbs. of tin, at 57. 10s. per ton.

CARADON CONSOLS.—S. Bennett, Feb. 6: The lode in the 80 west during the past week has been very fluctuating; the first time of taking it down we found it not so well as it had been; the last time, however, it has turned out better, and yielded some very good ore. Since passing the last small cross-course the lode has been split, and more or less disordered; the ground to-day seems somewhat easier, and more water issuing from it. There is no change worthy of notice in the east end. The west end of the rise still produces some good black and yellow ore; lode from 8 to 10 in. wide.

CARN CAMBORNE.—J. Seccombe, Feb. 6: We are making fair progress in sinking the engine-shaft in the 50.—South Lode: The 50 east is worth 15s. per fm.; west, in the same level, 82. per fm. The 40 east is poor. The same level west is worth 107. per fm. Midway, or 24 fm. level, west of engine-shaft, is worth 57. per fm. The same level, west of winze, is poor. All other operations continue without alteration.

CASTELL CARN DOCHGAN (Gold).—J. Parry, Feb. 8: The gold melted to-day weighs 45 ozs. 9½ dwts., which, together with the 20 ozs. 14½ dwts. already reported, makes the total produce for the 14 days worked last month 65 ozs. 4 dwts., from 130 tons of stuff. The stamps are going fresh again since Saturday evening, and are in good order and working well. I have no alteration to notice underground. On the whole, we are getting on satisfactorily.—P.S. The January bars are numbered 74 and 75.

CEFN CILCEN.—T. Hughes, Feb. 8: Engine-shaft: The lode in the 80 yard level west produces good stones of lead. The stope in the roof is also very promising, and yielding good stones of lead.

CENTRAL MINERA.—T. Hughes, Feb. 8: Victoria Engine-shaft: The driving at the 60 yard level, both east and west on course of the lode, is making satisfactory progress, and no material change since last reported.

CLARA UNITED.—J. Lester, Feb. 7: In driving the cross-cut from the 40 south we find small branches of lead and sulphur, with a quantity of water coming from the end. I am of opinion the lode we crossed in sinking the winze below the 40 cannot be far distant. The driving of the 50 west is resumed; set at 77. per fm. The stope in the back of the 50 are looking better.

COOLARTA AND BOND.—J. Spargo, Feb. 6: We have been driving by the side of the course of lead (designed) mentioned in my last report, and are keeping close to the hanging wall of the lode, which will form a junction with the run of lead in 6 feet further driving; up to the point we left off driving, I am happy to say, the lead holds good, and at the point of junction (as I have before said, only 6 feet ahead) I have every reason to believe the lode will be found equally as good as it is now to be seen in the back and bottom of the drivage, which is a splendid course of lead. The ground in the engine-shaft, sinking on No. 1 lode, or footwall from the 36 to the 46, as intended, is altering for the better, and the soft part of the lode on the footwall is gradually increasing in lead, and the shaft is now sinking at a good speed. We are daily expecting to meet with something very good at the red shaft, where we are driving on the end, which is 3 feet wide, composed of soft spar, carbonate of lime, blende, and lead. All the other parts of the mine are without material alteration. You will see by this that no mine can be more promising than this is at present.

CORNWALL GREAT CONSOLS.—W. B. Collom: We have erected a new 14-foot water-wheel to work the air machine at the deep adit, put in 5-in. air-pipes, and also completed tram-road to the end, being 250 fms. in, and 58 fms. deep. We have commenced to cross-cut south to cut the lode west of cross-course; set at 57. per fm. East of the cross-course five men are engaged in rising in the lode at 57. per fm. and 5s. tribute for ore; the lode here is about 3 ft. wide, the leader part of which contains very rich black and yellow copper ore; this lode in Calstock Consols has just been cut very rich in driving towards this mine. Altogether our prospects are most encouraging.

CROWAN AND WENDRON.—R. Reynolds, Feb. 6: The lode in the shaft is of the same size and character as last reported. No change in the 48 east. The lode in the 35 west is 18 in. wide, producing stones of grey and black copper ore.

DARREN.—R. Williams, Feb. 8: We have a good improvement in Oliver's end, which looks so far, to be of importance. We have to clear away the attie from the level before we can take down any more lode, as it must be saved. I hope the early part of the next week will enable me to give a good account of this point.

DEVON AND CORNWALL UNITED.—T. Nell, Feb. 6: George and Charlotte: In the 34 cross-cut, east of Ley's shaft, we have cut the south part of the lode; as far as seen it is producing some good stones of ore; we shall see more of this by the end of the week.—Williams and Mary: The lode in the 34, east of the whin-shaft, is looking very promising, worth 3 tons of ore per fm. The lode in the whin-shaft, is 4 ft. wide, worth 5 tons of ore per fm.—No. 5 Lode: In the 70, driving east of Thomas's shaft, the lode is yielding 4 tons of copper ore per fm. In the stope in back of the 70 the lode is yielding 4 tons of ore per fm. In the winze sinking below the 50 the lode is yielding 2 tons of ore per fm.—No. 5 Lode: In the 50, driving east of the cross-cut, the lode is yielding 1 ton of ore per fm. No alteration to report on in the other parts.

EAST DARREN.—Feb. 6: Taylor's Shaft: In the cross-cut south in the 116 east we have intersected the south part of the lode, which is 2 ft. wide, composed of a light clay-slate, and small branches of spar, unproductive for lead ore at present, and we intend putting the men to drive the former level, as these two lodes will meet as we drive a few fathoms more eastward. In the 104 east the lode is large, producing about 2 tons of lead ore per fathom. In the 92, west of boundary, no lode has been taken down since last reported. In the 80 east the lode is from 4 to 5 ft. wide, and producing about 1½ ton of lead ore per fm. In the winze sinking below the 68 east, 5 fms. from the present end, the lode is from 2 to 3 ft. wide, composed of a light clay-slate and lead ore,

producing of the latter about 1½ ton per fm.—Reed's Shaft: In the 80 west the lode is about 2 ft. wide, producing small branches of ore at times, but not to value. The stope and pitches throughout the mine are looking well, and producing their usual quantity of ore.

EAST GUNNISLAKE AND SOUTH BEDFORD CONSOLS.—J. Phillips, Feb. 8: The water is in fork in Gard's shaft, and the men are to their places. The lode in the deep adit is becoming more settled, and I hope shortly to have an improvement at this point. The lode in the shallow adit is 2 feet wide, producing stones of ore. The men are making good progress at this point, and we hope before long to meet with the large cross-course driven through in the deep adit, where we may fairly expect to meet with a good improvement. The present end is in a beautiful country for mineral.

EAST ROSEWARNE.—John James, Feb. 8: In the rise over the 85 east the lode is small and poor. In the 85 west the lode is much as last reported, 18 in. wide, worth about 207 per fathom. In King's shaft the lode is in two small branches, each producing stones of ore. In the 75 west of King's, the lode is 8 in. wide, producing munde and stones of ore. The stope throughout the mine are without change to notice since last reported.

EAST ST. JUST UNITED.—J. Cartew, P. Casley, Feb. 7: We have a large and kindly tin lode in Phillips's engine-shaft, sinking below the 10. At North Bosorne shaft we have cleared to the back of the 10; the greater part of the ground in both ends of the shaft has been worked away by the old miners; we came yesterday to an arch of ground in the west end of the shaft, which is rich for tin. By next report we hope to see something of the nature of the lode in the 10. In the Cranjack and Wheal Venton lodes there is no change. At Wheal Widden, in the 20, we have men taking down the lode in the side left by the old miners, and others staking on tin ground in the back of the level.

EAST WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Feb. 7: The lode in the engine-shaft, sinking below the 55, is of much the same size and character as we stated in our last advice. The lode in the 85 west has a little improved from our last advice; it is now about 2 ft. wide, and will yield from 3 to 4 tons of good ore per fm., with still a quantity of water flowing from the lode. We are engaged clearing up the 75, and putting in a dam, preparatory for sinking a winze where we anticipate a good lode of ore. The lode in the 75 east is 18 in. wide, of quartz, &c., sprigged with yellow ore, and yielding a little tin. The lode in the rise above the 55 is 3 ft. wide, yielding about 100 per fathom. The lode in the 75 west of shaft, on the north side, is 1 ft. wide, worth 67. per fm.—Rodda's Lode: We have taken down the lode this week, which is large and very promising, producing about 1 ton of copper ore per fm.—Tin Lode: In the rise above the deep adit the lode is worth 107. per fm.

GWYDYR PARK CONSOLS.—W. Smyth, Feb. 6: No change to notice in any part of the mine since last report. We are getting on with the dressing as fast as possible, though the weather is very wet.

HALLENBEAGLE.—E. Richards, R. M. Kitto, Feb. 3: At Pinniger's engine-shaft, sinking below the 55, the ground is without change since last reported. In the 56, driving west of said shaft, on Wheal Rose lode, the lode is 6 in. wide, producing stones of ore. In the 55 cross-cut, driving south, the ground is still hard. In the 56, driving east of Pinniger's engine-shaft, on north lode, the lode is 1 ft. wide, producing stones of ore. The lode in the 40, driving east of King's shaft, on Wheal Rose lode, is 6 in. wide, worth 47. per fm. In a winze sinking below the 43, east of King's shaft, on north lode, the lode east is worth 107. and 10s. per fm.; the stope in bottom of this level is worth 67. per fm.—Rodda's Lode: We have taken down the lode in the 40, east of King's shaft, on the south side, which is large and very promising, producing about 1 ton of copper ore per fm.—Tin Lode: In the rise above the deep adit the lode is worth 107. per fm.

HUNTINGDON CONSOLS.—T. Richards, Feb. 7: Bailey's engine-shaft, sinking below the 130, is worth 1007. per fm. for the length, 13 ft. The 130 west is worth 207. per fm. The 120 west is worth 151. per fm.

KELLY BRAY.—G. Rowe, Feb. 7: The lode in the 40 west is 1 ft. wide, producing stones of ore and good stones of tin. The lode in the 38 east is 1½ foot wide, showing a more kindly appearance, with good stones of tin. The tribute department is without change.

LADY BERTHA.—Capt. Metherell and Harpur, Feb. 5: We have met with a change

white killas; we hope this will make a change in the lode. We are still driving

the ground in driving east in the 53, occasioned by some cross-holes—it is of very

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the western part of the stopes is without change. In the stopes in the back of the same level, west of rise, the lode is from 15 to 20 inches wide, worth 4d. per fathom. The new lode in the 45 end, driving east of cross-cut, has improved; it is now 20 inches wide, composed of quartz, pebble, pumice, and tin, worth for the latter 7d. per fathom, and looking kindly to further improve.

WHEAL SPARNON.—E. Chegwin, Feb. 3: Sump: The sumpmen have made fair progress in cutting down Jardine's engine-shaft; the lode is large, yielding good stones of yellow copper ore. The stuffing-box of the plunger broke, and we were obliged to change it; the water has, therefore, been in at the bottom three days. In the 20 rise, on new lode, the lode produces stones of yellow copper ore, and is still letting down water. In the 20 west, on new lode, the lode produces stones of copper ore, and promises an improvement. Belfry's lode is much the same as when last reported on; ground good for sinking. We have broken down some good work for the time to-day from the pitch, and the pitch is looking very well.

WHEAL TRELAWNY.—W. Johns, T. Grenfell, J. Pryor, Feb. 3: The lode in the 182, north of Chippindale's shaft, is looking pretty well, worth 12d. per fm. The 78, north of the same shaft, is worth 6d. per fm.; when the rise in the back of the 108 is communicated to this level (the 78) we shall lay open a large piece of tribute ground. In the 182, south of Smith's shaft, and the 162, north of Trelawny's shaft, both of these ends we are driving by the side of the lode, we have not cut into the lode during the past month. We have commenced to sink two winzes in the bottom of this level—one north and the other south, for laying open ground for ventilating the levels below. By the increase of water we have now to contend with in Smith's engine-shaft, we are compelled to work the engine over seven strokes per minute, while every effort is being made. The working of the 196 is very slow, consequently very little has been done in this level during the past month. We set to-day our usual number of tribute pitches, but they have, on the whole, fallen off in value. We sampled on Jan. 30, computed, 50 tons of silver-lead ore.

THE LONDON COAL TRADE.—We have lately drawn attention to the South Wales coal field, as offering great advantages to the London consumer, and in confirmation of the views we have already expressed, we quote from the *Times* of yesterday the following:—"Owing to the signal success which has attended the reduction of rates between the South Wales coal fields and Birkenhead, the Great Western Railway directors have determined to take such steps as will insure the making of the South Wales and Great Western direct line between Wootton Bassett and the South Wales coal districts, crossing the Severn near Chepstow by a high level bridge, as originally proposed by Mr. Hamilton Fulton, the engineer, by which the distance between London and those coal fields will be reduced by 24 miles, and the line having only first-rate gradients, a ton of coals can be profitably conveyed, it is said, at the rate of 4d. per ton per mile, which for a run from the Aberdare coal field to London, the shortened distance being 148 miles, by Mr. Fulton's line, would be 4s. 9d. per ton, and 9s. being the cost of the best household coal at the pit's mouth, would bring up the wholesale price of the coals at the London terminus to about 14s. per ton. For the further development of the South Wales coal traffic, we see with satisfaction that the Central Wales, and the London Worcester, and South Wales (Deviation) Railway bills have this week complied with the Standing Orders.

RATING OF MINES.—In the House of Commons, on Thursday, Mr. Cave gave notice that on an early day he would ask the President of the Poor Law Board whether he intends bringing in a Bill during this Session for the rating of all mines to the relief of the poor.

THE MINES PURCHASE AND FINANCE COMPANY (Limited).—The novel idea of limiting the liability on this proposed company to 5s. per share seems to have taken immensely with the public, and applications for shares, we are informed, are pouring in from all classes of the community. There can be little doubt that the objects proposed by the company are such as to promise extraordinary results; while the names of the directors are a guarantee that everything connected with it will be fairly and honourably conducted. Two or three valuable properties have been offered to the company this week, and will, probably, be inspected as soon as arrangements are complete. Several mining agents in Cornwall have made application for shares for themselves, and have also asked how many they may be allowed to distribute among their friends, thus showing their appreciation of a project, in the success of which, financially, they may prove of great advantage, through their practical knowledge and means of information. The directors only intend issuing a certain number at par; and when that is complete, a good premium will be asked for the remainder.

MINING IN IRELAND is likely to receive a great impetus during the present year, preliminaries and arrangements being nearly completed which will, when announced officially, take the mining world by surprise. It is pleasing to find such a feeling displaying itself, as it shows a confidence in the state of things in that country, notwithstanding the insane Fenian movement. It also is a sure sign that Ireland's mineral wealth is at length beginning to force conviction. It will only be for such successes as have lately been recorded to be repeated a few times to create a decided *furore* in favour of such adventures. The English would cordially welcome and assist any vigorous and legitimate speculation, well knowing that in Ireland there is an ample field for a large capital to be beneficially and advantageously laid out.

THE ARSENIC AND SULPHURIC ORE REDUCTION COMPANY.—The works of this company are situated near the Perranwell Station, on the Cornwall Railway, and consist of several furnaces and a large number of subliming-chambers, so that they are apparently in every way fitted for the working of the process the property of the company; they are not, however, restricted to their present area, as it is easily possible to enlarge them to four times their present size. For the present, however, the company only propose to make such alterations as shall give them the power of producing 1000 tons of arsenic in the year. Running into the works there is a stream of water large enough and constant enough to work a water-wheel equal to the grinding of twice the quantity it is proposed to produce. Arsenic has been produced at these works for many years past, both by the late firm of Balkwill and Co. and others, while the firm referred to, which is now merged into this company, succeeded in disposing of about 500 tons per annum. Hitherto it has been the practice to obtain from the burning-houses where the ore has been worked the "soot," and from this the arsenic has been produced by its being exposed to heat in a furnace. The new process, however, admits of the arsenic being got from the ore direct as they are received from the mines, and this it appears can be done at a much less cost than by the old method.

M. Perrott has communicated to the Academy of Sciences at Paris an account of his apparatus for producing very high temperature by means of coal gas mixed with atmospheric air. He unites a certain number of Bunsen's burners, so that their flames may form a single band of flame without penetrating each other, and thus obtains a column of heated gas, of intense calorific power, in such a position that its energy may be readily controlled. Into this he introduces air in such a manner that as little heat as possible shall be lost. With an apparatus consuming two cubic metres of gas per hour, he states that he has been able to melt 670 grammes of silver, and in 30 minutes to melt and run out into bars a kilogramme of copper.

COPPER ORE ROASTING—SULPHURIC ACID.—We extract the following from an able lecture, delivered in Edinburgh last week, to the members of the Scottish Royal Society of Arts, by Dr. Stevenson MacAdam:—

The large amount of sulphur which is burned off from metallic ores in Swannes and elsewhere, and which escapes into the atmosphere as sulphurous acid, and thereafter becomes, in part at least, sulphuric acid, has recently called forth the attention of scientific and practical men. In the neighbourhood of works discharging such sulphurous smoke the ground is barren, scarcely any vegetation can be seen on it, and even high chimney stakes grow of little avail, as they merely carry away the sulphurous smoke, and distribute it over a wider and more distant area. One extensive firm of copper smelters discharge in this manner into the atmosphere about 10,000 tons of sulphuric acid every week, and it is estimated that annually there are burned off from the copper ores worked in Swannes about 70,000 tons of sulphur, of the value of 45s. 00/-, and which might produce no less than upwards of 210,000 tons of sulphuric acid, of the strength of oil of vitriol. Many of the manufacturers of sulphuric acid have begun to use the copper ore as a source of sulphur, and thereafter hand over the roasted ore to the copper smelter at Swannes. The raw ore contains about 50 per cent. of sulphur, and when roasted there is only left about 4 or 5 per cent. The ore is obtained in large quantities from the Guadiana River, Fort Formosa, in Portugal, from mines which were worked by the Romans, and it is used extensively for making sulphuric acid in London, Newcastle, Bristol, and other places. This is an excellent instance of the successful and economic employment of a material in the arts and manufactures which was till lately, and in many places still is, a nuisance over extensive tracts of country. The smoke in a very modified condition occurs in all large towns where much coal is burned, and especially in manufacturing towns, where the coal is often of inferior quality. In such towns, by the mere burning of the sulphur in the coals, many gallons of sulphuric acid must be formed, and in rainy weather be washed down on the people.

THE GEOLOGICAL SURVEY OF INDIA has now been in operation for about 10 years, under Mr. T. Oldham, L.L.D., as director. In the various presidencies, but especially in Bengal and Central India, its assistants have thoroughly investigated and mapped out an area more than twice that of Great Britain, or 185,000 miles.

THE LARGEST MARINE STEAM-CYLINDER ever cast has been turned out successfully by John Roach and Son, at the Elms Ironworks, New York City. It is 112 inches in diameter, and 12 ft. bore, and is for the new steamer *Bristol*, building for Sound service. This triumph of American skill gives but another proof of our advancement in the manipulation of iron in this country. We have produced the largest wrought-iron solid fly-wheels, shafts, composition screw-propeller, guns, and now the king of all steam-cylinders. With this cylinder on end, a round table placed in its centre, would accommodate about 30 people.—*American Paper*.

DESMALPHURISING ORES.—Messrs. Tait and Avis, of New York, have patented the process of desmalphurising sulphurates by a current of heated compressed atmospheric air, impelled by a suitable pump, in combination with a closed furnace containing the ore. Also the use in this process of nitric oxide gas in combination with the atmospheric air; also the use of steam in combination with the heated air.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, FEB. 9, 1866

COPPER.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	BRASS.	Per lb.
Best selected...p. ton	99	0	0	—	Sheets	11 0.
Tough cake & tile	96	0	0	—	Wire	10 4d.
Burns Burns	100	0	0	—	Tubes	11 1d.
Copper wire	0	12 1d.	—	STEEL.	Per Ton.	
ditto	0	13 1d.	—	Swedish, in kegs (rolled)	13 0 16 0 0	
Sheathing & bolts	101	0	0	(hammered)	16 0 16 0 0	
Bottoms	106	0	0	Ditto in fagots	16 0 16 10 0	
Old (Exchange)	87	0	0	English, Spring	18 0 23 0 0	
Snow	—	—	—	TIN.	Per Ton.	
Bars Welsh, in London	7	10	0 8	0 0	Foreign	23 0.
Ditto, to arrive	7	10	0 7	12 6	To arrive	23 5 0.
Bars, common, ditto	8	15	0 9	5 0	SPELTER.	Per Ton.
Do., merch., Tyne Tees	7	10	0 9	15 0	TIN.	Per Ton.
Bars ditto	9	0	11	0	Foreign	86 6.
Hoops ditto	9	15	0 10	10 0	TIN.	Per Ton.
Sheets, single	10	10	0 11	0 0	TIN-PLATE.	Per Ton.
Pig, No. 1, in Wales	4	5	0 4	10 0	IC Charcoal, 1st qua. p. bx	1 15 0.
Ditto, metal, ditto	4	0	5	0 0	IX Ditto 1st quality	2 1 0.
Bars, common, ditto	7	0	0 7	5 0	IX Ditto 2d quality	1 13 0.
Railway chairs	5	10	0 5	15 0	IX Ditto 2d quality	1 19 0.
spikes	11	0	0 12	0 0	IC Coke	1 8 0.
Pig, No. 1, in Clyde	3	8	6	3 16 6	IX Ditto	1 14 0.
Ditto, f.o.b., Tyne or Tees	2	9	6	—	Indian Charcoal Pigs	7 0 0 7 10 0
Ditto, Nos. 3, 4, f.o.b. do.	2	6	2	5 6	In London	—
Ditto sheet	21	10	0 21	15 0	In London; 20s. less at the works.	—
Ditto red lead	23	10	0 24	0 0	Yellow Metal Sheathing	1 9 1d.
Ditto white	27	0	0 30	0 0	Sheets	1 9 1d.
Ditto patent shot	23	15	0 24	0 0	In London	—
Spanish	29	5	0	—	At the works, 1s. to 1s. 6d. per box less.	—

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The Metal Market during the past week has shown considerable dullness, and prices in some instances have become lower, and in most cases still remain rather weak. In great measure this is owing to the continued tightness of the Money Market, which is a very serious interruption to commercial operations, and causes many orders to be held back which would otherwise be given out; merchants generally being indisposed to enter into transactions of any magnitude while the rate of interest is so high, and while there seems no immediate prospect of money becoming easier. We trust, however, that this state of things will not exist much longer, as it is very discouraging, at the early part of the year, to find business so much curtailed and kept back by the stringency of the money market. The accounts from India are not quite so favourable, but we hope this is merely temporary, and that the next advices will be of a more satisfactory character. The orders from America still come in very slowly, and so much uncertainty exists with regard to the import duties there, that manufacturers are not much disposed to enter into any very extensive contracts at present; and from the tone of American intelligence there seems to be great fear that these protective duties will be established.

COPPER.—The market has continued quiet during the week, and transactions have not been very numerous. At the former part of the week business was done at 17. under smelters' rates, but latterly the market has become rather firmer, and sales have occurred of rough cake at smelters' prices. It is by no means improbable that we may see a long improvement in this metal, and that an advance in price may take place.

IRON.—In Staffordshire the demand for manufactured continues quiet. The orders for the States are small; and the high rate of money prevents merchants ordering in advance of immediate requirements. The principal works are fairly employed, but the trade is rather dull. Prices, however, are firm, owing to the high price of pig-iron, and the rate of wages, which do not admit of second-class manufacturers abating much from the list prices. In Welsh the trade is steady. Welsh orders come in somewhat slowly, but there is every prospect of business remaining steady for some time to come. A moderate business is doing on French account, and the other continental markets are taking average quantities. The home trade remains without change; and, considering the state of the money market, business is, on the whole, in a satisfactory condition. In Swedish iron a very fair business is still doing, at former prices. In Scotch pig-iron a moderate business has been done, at improved prices. At the commencement of the week the price advanced to 68s. cash, and afterwards to 68s. 6d. cash; it then declined to 67s. 6d. cash, but again rose to 67s. 9d. cash; and the last accounts from Glasgow give a further improvement to 68s. 6d. cash, so that, upon the whole, the market is in precisely the same position at the close as it was at the commencement of the week.

LEAD.—The market continues dull, and without any important transactions. Prices remain the same as quoted last week.

TIN.—An English decline of 2d. per ton was announced by the smelters on Tuesday, making present prices 95d. for blocks, 96d. for bars, and 98d. for refined. In foreign the market has been considerably depressed, and the price of Straits has gradually become lower and lower, business having been done at the commencement of the week at 88d. 10s. cash, then afterwards at 87d. cash, and 86d. 10s. cash, still the price declined, and no rally took place, and transactions occurred at 86d. cash, and finally sales were effected at 85d. cash. We cannot, however, consider this state of things legitimate, but that it has been caused by interested parties, we, therefore, think we shall see an improvement ere long. Advices have been received from Holland that the next public sale of Banca will take place on March 22, when 111,800 slabs will be brought forward; the following sale will be in the autumn.

SPELTER.—The market has been very quiet during the week, and parcels on the spot still remain at 23d.

TIN-PLATES.—The enquiry is brisk, and quotations are fully maintained, makers being unable to deliver as fast as buyers require.

STEEL and QUICKSILVER without alteration.

THE IRON TRADE—[GRIFFITH'S BI-WEEKLY REPORT.]

WOLVERHAMPTON, FEB. 9.—The iron trade is steady for first-class brands; the demand keeps up; the manufacturers have not bought pig-iron so freely this week as of late.

BIRMINGHAM, FEB. 9.—Rylands' "Iron Trade Circular" says:—Market without change. Workers busy. Pigs as before.

THE LIVERPOOL METAL MARKET—FEB. 8.

PIG-IRON.—The market is in a very uncertain state, and fluctuates considerably. A few speculators seem to have been forcing their holdings on the market, while others who can afford it continue to hold firmly for further advance. The speculation for the past month has been beyond all reason, and we fear many will deservedly burn their fingers before very long. Opinion as to the immediate future of the pig-iron trade seems divided, many are under the impression prices will be much firmer, but we believe a considerable run of forced sales by over-bought speculators, which must tend in the other direction.

MANUFACTURED IRON continues in good demand. The principal makers in South Wales are full, if not overstocked with orders, and show no willingness to give way in prices for the best specifications. Common bars may be bought for 7d. to 7d. 5s. f.o.b. South Wales. We hear no complaints from Staffordshire or Cleveland of scarcity of business. The East Indian demand is good, also the Mediterranean and continental, but American orders dribble in rather slowly. Altogether the iron trade is in a satisfactory state, though we see no possibility of higher prices.

HEMATITE ORES are somewhat firmer in price; the long spell of bad weather having operated against large shipments, making smelters, especially in South Wales, rather short of stock.

COPPER is slightly firmer, without any great amount of business. It is impossible to form any opinion as to the future, all depends on the course of events in Chili.

TIN-PLATES continue in full demand, and at advancing prices. We think it quite within the bounds of possibility that we shall see charcoals quoted at 40s., IC, before many months are over. Prices to-day may be quoted 32s. to 35s. for charcoals IC f.o.b., and 27s. to 29s. for cokes.

Other metals rule rather duller, with business insignificant.

COAL MARKET.—The fresh arrivals this week reach 87 cargoes. The continued mildness of the weather operates unfavourably upon the trade in house coal, and prices have further receded 6d. to 1s. per ton, at which nearly a clearance has been effected. Hartley's have remained steady

throughout the week, at last prices. Hetton Wallsend, 17s. 6d.; Haswell Wallsend, 17s.; South Hetton Wallsend, 17s.; Hartlepool Wallsend, 17s.; Lambton Wallsend, 16s. 6d.; Eden Main, 15s. 6d.; Hetton Lyons Wallsend, 14s. 9d.; West Hartley, 16s.; Holywell Main, 17s.—Unsold, 9 cargoes: 100 ships at sea.

THE TIN TRADE.—Mr. L. Th. van Houten, under date Rotterdam, Feb. 6, writes—The Dutch Trading Company has to-day fixed the first sale of Banca tin this year to take place in Rotterdam, on Thursday, March 22, when 111,80

to 80; the lode in the 80 west has improved, and the 90 has also further improved, both in the richness of the lode and the ease for driving the ground. A great quantity of water is issuing from the cross-cut in the 100, and the lode is expected to be intersected in a few days. Chiverton Moor is again in full work, and the prospects are of a high order. At Chiverton it is daily expected to communicate with the bottom of the mine, at the engine-shaft, when the mine will be rapidly developed. Del Rey shares have been largely dealt in, consequent on the improved returns, and are very firm at 53 to 54. Don Pedro, par to 1/2 prem.; East Del Rey, 1 to 1 1/2; Anglo-Brazilian, 1-16 dis. to 1-16 prem.; Port Phillip, 1 1/2 to 1 1/2; English and Australian Copper, 1 to 1 1/2; Cape Copper, 4 1/2 to 5 prem.; Cobre Copper, 18 to 20. Chontales have been very largely dealt in at 3 1/2 to 3 1/2 prem.; the buying has been chiefly for investment, and the operations of the company appear to be of a most *bona fide* character, and the prospects most assuring. Foreign Lands, 750 to 850. Frontino shares are unchanged at 1/2 to 1 prem. The dealings otherwise in mine shares have been unimportant.

IRISH MINE SHARE MARKET.—Dealing in shares of any kind have not been very active, although firmness in the price of public stocks indicates that in the best informed circles an early improvement in financial matters is looked forward to. But the arrival, within the last fortnight, of a fleet of upwards of fifty grain-laden vessels in the port of Dublin alone will, for a time, direct the attention of some of our more active speculators. On the other hand, the proprietors of the sulphur-producing mines of the county of Wicklow will, no doubt, reap some benefit from the presence of so large a number of vessels, which, instead of running in ballast to Liverpool and other English ports for return cargoes, will, of course, afford a cheap means for shipping off quantities of Ovoca pyrites from Kingstown or Arklow harbours, where, owing to the tempestuous weather, it has greatly accumulated. This circumstance alone would be sufficient to account for the exclusive firmness of the Wicklow Copper and Connoree Mining Companies' shares. The latter have been much enquired for at last week's medium price of 17s. 6d. per share, without meeting with sellers. Wicklow Coppers (21. 10s. paid) have been strong at 20s. to 20s. 5s., but the large premium attracted a considerable supply of shares, which, consequently, close at a decline of 1s. 9d. to 2s. per share. Mining Company of Ireland shares, the market value of which chiefly depends on the not always well regulated public opinion of the state or prospect of the lead and copper markets, and have within the last few days been rather numerously offered for sale, have suffered some relapse from our last quotations, but are again on the improve, and close in demand at 19s. 5s. for cash (7s. paid). A half-yearly ordinary general meeting of the Connoree Mining Company was held in Dublin on Saturday last, which was numerously attended, and of much interest. For want of space we must defer further details until next week, merely mentioning, for the present, that the accounts for the six months ended on the 30th of November last showed the total profits for the half-year to amount to 140s. 12s. 2d., including 1050s. 14s. 5d. for the value of the stock of ores on hand, being an excess of 1221 tons over that of the previous half-year.

To connect the Paris, Lyons, and Mediterranean and Victor Emmanuel Railways in France with the Lombardo-Venetian, Central, and Southern Railways of Italy, a highly influential company, the MONT Cenis RAILWAY COMPANY, with a capital of 250,000*l.*, in shares of 20*l.* each, and power to borrow 125,000*l.* on 7 per cent. bonds, has issued its prospectus, which will be found in another column of this day's Journal. The enterprise is to be presided over by the Duke of Sutherland, K.G., and Sir James Hudson, G.C.B., is chairman; whilst the list of directors includes the names of Mr. Thomas Brassey, Sir M. Peto, Sir Robert Dallas, Messrs. E. Blount, T. R. Crampion, W. B. Buddicom, the Duke of Vallombrosa, Lord Abinger, and others of equal position. There are several features in the project which command its attention—the cost of the line will be small, owing to its being constructed along a public road; there is a large amount of traffic existing on the road; and the work being of a temporary character the present liberal tariff will be maintained, which will leave a large profit to the shareholders annually after reimbursement of the capital with interest. It is estimated that it will be ten years before the Mont Cenis Tunnel will be completed; but to provide for possible contingencies, it is calculated that the line will only remain in work for seven years, and taking the probable working revenue and the value of the plant at the end of the term, and deducting the working expenses, interest, and reimbursement of capital, it appears that the revenue would leave an annual surplus sufficient to give large profits, and should the line continue open longer the profits will consist of the entire net earnings.

The TAQUARIL (BRAZILIAN) GOLD MINING COMPANY will shortly issue its amended prospectus under most favourable auspices, and with several important additions to the board of directors. It has been already stated that the object of this enterprise is to acquire the Taquaril estate, and the mines thereon. The directors have entered into a provisional contract for the purchase thereof, upon the following terms:—14,000*l.* in cash, and 12,000*l.* in 12,000 shares, with 1*l.* paid thereon. The estate is freehold, and adjoins the Morro Velho estate, belonging to the St. John del Rey, from which it is situated about four miles. The mine has been most favourably reported upon by Mr. Joel Hitchens, late Chief Commissioner of the Imperial Brazilian Gold Mining Association; Capt. Henry Pengilly, 13 years at St. John del Rey, 12 at the Imperial Brazilian, and two at Taquaril; Mr. W. Williams, late manager of the Brazilian Gold Mining Company; Mr. W. Lanyon, the last miner who worked in the Taquaril Mine; Mr. T. Martin, 30 years in Brazil; Mr. W. Goyen, 16 years at St. John del Rey, and present superintendent of the Frontino and Bolivia Gold; Mr. R. S. Bryant, present superintendent of the Santa Barbara; and Mr. W. Furst, 34 years in Brazil, late from the St. John del Rey Mines. From whose reports it will appear that the Taquaril Mine continued to yield considerable quantities of gold, until the rude mechanical appliances in use for draining the water proved inadequate to its further prosecution. A large proportion of the capital has been already subscribed.

At Redruth Ticketing, on Thursday, 1892 tons of ore were sold, realising 8492*l.* 3*s.* 6*d.* The particulars of the sale were:—Average standard, 118*l.* 16*s.*; average produce, 6*l.* 1*s.*; average price per ton, 4*l.* 10*s.*; quantity of fine copper, 115 tons 6 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Jan. 11.	1882	£129 17 0	54 <i>s.</i>	£4 15 0	100	16s. 5 <i>d.</i>
18.	3989	130 7 0	55 <i>s.</i>	4 10 0	16 2	80 16 6
25.	2650	121 2 0	63 <i>s.</i>	4 13 6	15 3	76 5 0
Feb. 1.	4789	119 16 0	63 <i>s.</i>	4 12 0	15 0	75 0
8.	1892	118 16 0	63 <i>s.</i>	4 10 0	14 9	73 18 0

Compared with last week's sale, the decline has been in the standard 1*l.*, and in the price per ton of ore about 2*s.* Compared with the corresponding sale of last month, the decline has been in the standard 9*s.*, and in the price per ton of ore about 11*s.*

At Wheal Basset meeting, on Tuesday, the accounts showed a credit balance of 3089*l.* A dividend of 102*l.* (2*s.* per share) was declared. Since the last meeting operations have been seriously curtailed by the very extensive run in the greatest south adit. At the present time they have about 60 fathoms of water in the mine, it being now up to the 100. A contract has been effected for converting Richard's engine into a 55-hp. at a cost of 900*l.*

At West Conduor meeting, on Feb. 1, the accounts showed a loss on the four months' working of 537*l.* The mine has considerably improved, and is looking better now than for five years past; all the ends are productive, with an appearance of further improvement. The next sampling of ore is expected to be 20 tons. There is no mine situated in a better locality for ore and tin. About 10,000*l.* has now been called up.

At Wheal Tremayne meeting, the accounts showed a debit balance of 119*l.* Owing to the heavy rains this winter, they have, like most other mines similarly situated, been unable to cope with the water; and to get it out would take two months, at a cost of 800*l.*; and, further, that it would be impossible with the present price of tin to work at a less loss than 2000*l.* a year. The concern will, therefore, most likely be abandoned forthwith. The machinery is estimated at 3000*l.*

At the North Wheal Robert meeting, on Wednesday (Mr. J. Proctor in the chair), the accounts made up to the end of December showed a debit balance of 101*l.* 1*s.* 2*d.* The profit and loss account for the four months showed a loss of 1036*l.* A call of 3*s.* 6*d.* per share was made. Details in another column.

At the St. Day United Mines meeting, on Tuesday (Mr. J. Balster in the chair), a resolution was passed to the effect that the committee be authorised to wind-up the company, and to take the necessary steps to surrender the existing assets to the grantors. Details in another column.

At the Pendine Consols Mine meeting, on Tuesday, the accounts for the three months ending with the cost for Dec. showed a debit balance of 441*l.* 1*s.* 4*d.*, including the January cost, which was estimated at 520*l.* the debit balance amounted to 891*l.* 1*s.* 4*d.* The loss upon the three months' operations amounted to 707*l.* 0*s.* 7*d.* A call of 6*s.* per share was made; the arrears of call amounted to 242*l.* 1*s.* 3*d.* The report of the agents (Captains K. White and H. Eddy) stated that there was now one pitch working for copper, by four men and one boy, at 12*s.* 6*d.* in 1*s.* There were also five pitches working for tin, by ten men and two boys, at tributes varying from 1*s.* 1*d.* to 1*s.* 1*d.* Upon Prothero's lode the adit south-east has been driven 13 fms. 4*f.*; lode 8*f.* wide, composed of prian, mudi, copper, and tin—a very kindly lode, but at present

not paying. By driving this level they would communicate with the adit on Pendine lode, which will give good ventilation to develop fully the junction of these lodes, which they considered a most important point.

At South Wheal Seton meeting, on Feb. 1, the accounts for November and December showed a debit balance of 900*l.* 9*s.* 2*d.* A call of 2*s.* per share was made. The arrears of call amount to 592*l.* 1*s.* 8*d.* Captains Charles Thomas, Malachi Bath, and John Thomas recommended the present plan of working to be continued—sink the engine-shaft on the south part, where the rock is firmer as we get deeper, drive the 60 east and the 26 south; the whole with the present number of men."

At the North Treskerby Mine meeting, on Tuesday, the accounts for November and December showed a profit on the two months' working of 1178*l.* 1*s.* 4*d.*, and a credit balance of 1347*l.* 10*s.* 8*d.* Captains R. Pryor, J. Tregoning, and T. Jenkins, and it is a great comfort to us that notwithstanding this drawback to our position, so far as relates to the time of making a dividend, yet it is gratifying to know that the mine affords ample means for paying all, without calling on you to help us under our present circumstances."

At the Montes Adreos (Brazilian) Gold Mining Company meeting, to be held on Feb. 22, the report of the committee appointed at the general meeting, held on Jan. 24, to be then submitted, states that, reviewing the past in the light now thrown upon it by subsequent events, they are of opinion that Mr. Günther should have been dismissed, they are not prepared to say that at any given date before the close of last year they themselves would have dismissed him, or that his dismissal would have materially improved the present disastrous position of the company. The committee are satisfied that the directors believed the statements in Mr. Günther's report to be perfectly reliable, and they are of opinion that the original formation of the company was effected in a spirit of fairness towards all parties, that the directors have honestly endeavoured to bring the adventure to a successful issue, and that they are not responsible for its failure. In the absence of any explanations from Mr. Günther, which he is fairly entitled to make in his own defence, they feel much hesitation in pronouncing any judgment in regard to his conduct. The only evidence they have been able to obtain seems to show—that Mr. Günther's inspection and original report were made in good faith, but that he did not take proper measures to test the accuracy of the statements in his report; that in no material point have these statements been borne out by the results of the working of the four years during which he has had charge of the mine; that under great difficulties and the discouragements naturally consequent upon consciousness of failure, no efforts have been wanting on his part to make the enterprise profitable, assuming (as he seems to have done, at any rate until a very recent period) that the main, if not the only, hope of success lay in his obtaining gold in profitable quantities from surface operations; and that he has been very culpable in not having ascertained with certainty within at least one year of his arrival at Montes Adreos whether the alluvium were really as rich in gold as stated in his original report. The committee conclude by stating that having carefully considered the best evidence they have been able to obtain on the matter submitted to them, they are of opinion the company must be wound-up immediately, and that it should be wound-up voluntarily.

At the Rees River Silver Mining Company special meeting, on Thursday day (Mr. Attwell in the chair), convened for the purpose of confirming the agreement for the purchase of the property selected by the deputation, an amendment was proposed by Mr. Surtees, seconded by Mr. H. Thompson, to the effect that Messrs. F. Chappell, A. Parry, and Rickett be appointed a committee to enquire into the affairs of the company, to report a future meeting, with power to convene a meeting for the voluntary winding-up of the company should the committee deem that course desirable.

During the discussion which took place Mr. Johns, who formed one of the deputation, stated that with the advice and assistance of one of the best engineers in the whole

country they inspected 30 or 40 different mines before the merits of the property which had been secured were brought before them. After some negotiation with the owners, who at first required a very much larger sum, they eventually consented to accept £24,000, provided the contract was drawn out for \$36,000, because it should not appear in the books of the register that the property had been sold for the smaller amount.

He fully believed that the property would prove highly remunerative, and more especially if the railroad were extended up to Austin City from the Great Pacific line. That the property was remarkably cheap there could be no doubt, seeing that the adjoining

property—Confidence No. 1—could not now be purchased for \$150,000. In fact, before they left Austin City they were offered for it three times the amount given. After some discussion, the amendment was put and carried, the board unanimously supporting it. Some of the specimens of ore brought by the deputation from the mine above referred to have been assayed by Messrs. Johnson and Matthey, and which have yielded 402 ozs. of silver to the ton of ore. Those specimens were described as being far below the average of those daily taken to the mill at the mine, although from the inefficiency of the machinery there employed results which ore of such quality should produce were not being realised. Some other specimens were stated to have yielded 2000 ozs. of silver per ton of ore.

South Pendine Mine has been sold to an English company for 70,000*l.*

On the Stock Exchange, only a limited amount of business has been transacted in mining shares during the week. The following quotations were officially recorded in British mining shares:—East Caradon, 6*l.* 7*s.* 6*d.*; Great Wheal Vor, 31, 30*s.* 3*d.*; East Gronville, 3*l.* 3*s.*; Great Laxey, 20*s.* 2*d.*; Colonial mining shares the prices were:—Yudanamutana, 2*s.*; Scottish Australian, 2*s.*; Vancouver Coal, 2*s.* 3*d.* In Foreign mining shares the prices were:—Chontales, 4*s.* 4*d.*; 4*s.* 4*d.*; 4*s.* 4*d.*; 5*s.*; St. John del Rey, 5*s.* 5*d.*; 5*s.* 5*d.*; 5*s.* 5*d.*; ditto, 4*s.* paid, 4*s.* 4*d.*; 4*s.* 4*d.*; Frontino and Bolivia, 1*s.*; Fortuna, 2*s.*

The Bank of England return for the week ending Wednesday evening showed, as compared with that of the preceding week, in the notes issued, decrease, 77,605*l.*; notes in circulation, decrease, 47,025*l.*; public deposits, increase, 403,965*l.*; other deposits, decrease, 1,046,152*l.*; Government securities in banking department, decrease, 63*s.*; other securities in banking department, decrease, 556,386*l.*; coin and bullion in both departments, decrease, 108,457*l.*; seven day and other bills, decrease, 91,842*l.*; the Rest, increase, 35,454*l.*; and in the notes in reserve, decrease, 30,680*l.* The total reserve of notes and coin in the banking departments was 6,690,793*l.*, against 6,752,255*l.* showing a decrease of 61,462*l.*

At the Provincial Banking Corporation meeting the balance for disposal was stated at 11,638*l.*, and a dividend was declared for the half-year at the rate of 5 per cent. per annum: 2500*l.* is also appropriated to the reserve fund, 563*l.*, to the credit of preliminary expenses, 1875*l.*, to rebate on bills, and 1600*l.* is carried forward.

At the General Credit and Finance Company of London meeting the directors recommended a dividend of 10*s.* per share, making a total distribution of 15 per cent. for the year.

The vacancy in the chairmanship of the Madras Railway Company, caused by the death of Gen. Duncan Sim, has been filled by the election to the chair of Mr. James Walker, hitherto the managing director of the company. Col. J. T. Smith has been appointed a director, and Mr. Julian Byrnes secretary to the board.

SILVER MOUNTAIN UNITED MINES COMPANY (LIMITED).—A petition for winding-up the company by the Court of Chancery has been presented to the Lord Chancellor by J. Williams, C. M. Thomson, and H. Hughes, of Aberystwith, coal merchants, and it will be heard before Vice-Chancellor Sir Richard Terlir Kindersley, on Feb. 17.

SAINT DAVID'S GOLD MINING COMPANY (LIMITED).—A petition for winding-up the company by the Court of Chancery has been presented to the Lord Chancellor by E. J. Bridell, of Beaumont-street, Portland-place; and C. H. Maude, of St. George's-square, Belgrave, contributors of the company, and will be heard before Vice-Chancellor Sir Richard Terlir Kindersley, on Feb. 18.

A petition for winding-up the West Clifford United Tin and Copper Mining Company is to be heard before the Vice-Warden of the Stannaries on Feb. 15.

Vice-Chancellor Wood has appointed Mr. R. P. Harding official liquidator of the Bearish Tin Streaming Company (Limited).

The liquidator of the Santa Barbara Gold Mining Company has issued a circular to the shareholders, dated Feb. 6, calling attention to a further improvement in the Pari Mine, as evidenced in the accounts just received from the manager in Brazil.

CONSETT IRON COMPANY.—At a meeting of the directors, held in Newcastle, it was resolved that a dividend of 7*s.* 6*d.* per share be paid to the members, being at the rate of 10 per cent. per annum.

WANTED, IMMEDIATELY, to TAKE THE ENTIRE MANAGEMENT of a LARGE IRON AND STEEL WORKS, in THOROUGHLY PRACTICAL MAN. He must have a complete knowledge of every description of forging, and also understand the rolling of plates, rails, and heavy bars. The locality in which the works are situated is pleasant and central. The highest references will be required, and none but men possessing every ability will be treated with. The salary will be liberal. All communications will be considered strictly confidential.—Address, stating age and qualifications, to Mr. S. H. F. Cox, 3, East Parade, Sheffield.

WANTED, an EXPERIENCED MINE AGENT, to GO OUT to PORTUGAL, about the middle of next month.—Applications may be made, in the first instance, to Capt. THOS. PARKEN, Roche, St. Austell, Cornwall.

WANTED, a GENTLEMAN to FORM a COMPANY to WORK a RICH TIN STREAM WORK. The capital required would be small, and the profits would be immense. Returns would be made almost at once. For particulars, apply to "J. B." MINING JOURNAL office, 26, Fleet-street, London.

WANTED, a steady YOUNG MAN as ASSISTANT ASSAYER, COMPETENT to UNDERTAKE the ASSAYING of LEAD and SILVER ORES.—For further particulars, address to the BURGH PORT SMELTING COMPANY (LIMITED), Pembrey, Carmarthenshire.

TO COPPER MINERS.—**WANTED, a QUANTITY of SULPHUR PYRITES.**—Address, Mr. W. Hunt, Chemical Works, Castleford, Yorkshire.

TO CAPITALISTS.—**WANTED, a PARTNER in ONE of the MOST PROMISING COLLIERIES in NORTH WALES.** The royalty is about 500 acres, and is already proved to contain four valuable seams of coal, adapted both for house and steam purposes, and the returns on the capital invested will be at least 50 per cent. annually. The capital is required for the full development of the concern, and if preferred the incoming partner may have the entire management, financially and otherwise.—Address, "W. 15," Post-office, Liverpool.

TO CAPITALISTS.—**A GENTLEMAN, possessing very valuable and extensive quarries in one of the British possessions (the only one of the kind yet discovered in that part of the world, where building stone is very dear), which he is unable to work for want of capital, and which if worked would yield an enormous profit, WISHES to MEET with a GENTLEMAN or COMPANY who could establish a company to work the quarries, or find the necessary capital. None but principals treated with.—Address, "**

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

MINES PURCHASE AND FINANCE COMPANY (LIMITED).—It is not our intention to issue any prospectus, but we reprint our remarks of last week, adding that the company will be managed under Articles of Association something similar to the FOREIGN LANDS, and if it be found, hereafter, that a much larger capital can be safely employed, power will be taken for the issue of fresh shares, to be offered as a sort of bonus to the present holders. We expect our list will soon be full, and we hope shortly to commence active operations, after which no shares will be issued, except at a good premium.

"The almost unprecedented success which has attended the operations of the FOREIGN LANDS AND MINERAL RIGHTS COMPANY in little more than twelve months, for the benefit of a few, has suggested to us, and to others, whether something cannot be done in the same way for the many! The Foreign Lands Company was originally in 50 shares, and only a very limited few had the opportunity of getting any; and when afterwards there was a fresh issue of 50 shares they were, of course, offered to, and taken by, the holders of the first 50. And in 12 months one share, upon an outlay of 145. (14,500.), has risen to a premium of 5500., and the property obtained by the company has been sold to the Chontales Company for 95,000., in paid-up shares, making, as we said last week, one share, 145, paid, worth 5500., to 1000. a year. Now, it has been proposed to us to start and manage something of the same sort for the million—say, THE MINE PURCHASE AND FINANCE COMPANY (LIMITED), in 60,000 shares of 5s. each. The advantages of this company will be—

1st.—Every one can have a share, and no one be liable beyond 5s. per share.

2nd.—Not a sixpence will be charged for promotion-money, no free shares, and the expenses of management shall not exceed 200. for the first year.

We have been offered a property which, if the reports given are true, and they can be tested for 100%, would yield an enormous profit to a company like this, and there are several other objects in view that may lead to very profitable results.

The management of the company is formed will be in our office, and in the hands of three directors—Mr. S. W. Dancks, of Whitehall-place, director of the Railway Passengers Assurance Company; Mr. B. Cobb, merchant, Fenchurch-street, and a director of Old Gunnislake Company; and Mr. J. Y. Watson, F.G.S., director of the Great North Laxey Mine.

Several thousand shares have already been taken, and the directors will reserve the right, if they think it desirable, of limiting the first issue, at par, to 30,000. Anyone feeling disposed to take shares will be pleased to forward an application to us without delay, stating the number they require, and accompanied by a cheque for the amount; for this a receipt will be given, to be exchanged for paid-up certificates as soon as the registration is complete. Some ill-natured people may say—"Oh! this is merely a company under the control of Watson and Cuell; and we answer—So it is, in a great measure, and we ask our friends and clients to join in it, because we see a fair prospect of making by IT VERY LARGE PROFITS. Should the company not be completely formed, the money will, of course, be returned in full. To those who do not understand the working of a company like this, and how the Foreign Lands made their money, we may explain that we are now offered a property for something over 20000., which might with a small outlay, if the reports given us be true, be made to pay 30000., to 50000. a year; and the first action of the company will be to send trustworthy agents to test the reports, and if correct buy the property, and then sell it to a larger company, that would work it, and pay a handsome profit for it, and the holders of shares in this company would also have the option of taking any number of shares in the new company at par. The financial department of the company might also be made very profitable; for we have often referred to the large amount of interest to be obtained in carrying over stock and shares from account to account, &c. If it be argued that the capital is too small, we may reply that the Foreign Lands commenced with less than 50000., and never had occasion to call up much more than 12,000.; and the directors of the company now proposed conscientiously believe that, small as the capital they ask for may seem, they shall be enabled not only to make large profits but to form the nucleus of a great concern. In this belief they will devote much of their time to it, and subscribe for 1000 shares each; and as the operations of a company of this nature to be successful must be prompt, and in a measure secret, those who take shares must be prepared to give to the directors their fullest confidence.

NEW EAST RUSSELL—"A Large Shareholder."—We believe we shall but express the opinion of the best practical agents in the district when we say there is no better speculation in the West of Devon than New East Russell, but the shares are not in the market at present, though operations are progressing at the mine. In the 20, below edit, the lode is 2 ft. wide, of a very promising character, and yielding saving work for copper ore, and with every appearance of improving. This drivage will be continued for three months, and a rise then put up to communicate with the adit for ventilation, and the latter will then be driven under the finest and largest gossan lodes ever seen in the district near the surface. The adit will come under this gossan 80 fathoms deep, giving 80 fathoms of backs, and the agent expects large deposits of copper ore. The 20 west has gone through a course of ore that will work at a profit when the ventilation is obtained. About 30 tons of copper will be sold next month. The calls are very light, and the prospects of the mine, as it will be seen, such as to justify the expectation of a high price for shares some day.

"W. M. J."—1, 2, 3, 4, 5, 6 sell if you can; 7, 8, 9 may improve; 10 hold; 11 no price whatever. Very little, indeed, can be said in favour of either, with the exception of 10, which is progressing well.

DYFERN CASTELL.—We have just sold a parcel of blonde, 28 tons, at 51. per ton, and the mine is progressing very satisfactorily for discoveries of lead. Some time ago the agent estimated the blonde discovered at 500 tons, but there is no power enough to return it in any quantity, and ere long a company will be formed to work the mine as vigorously as it deserves. To develop it so far many thousands have been expended.

GREAT NORTH LAXEY.—On Jan. 20 we reprobated the practice of parties obtaining lists of shareholders in mines, and of sending to them all sorts of circulars and prospectuses, to their great annoyance and disgust. This week grave complaints are made that some person or other a few days ago obtained a list of shareholders in Great North Laxey, and wrote them, endeavouring to get shares out of them at low prices; and we think in every case of this sort the names of the offender or offenders ought to be published, and if the shareholders would send the letters they receive for publication it would put a stop to the practice. Some shareholders, too, it appears have fallen into the trap, at which we are the more surprised, as for some weeks past, in this place and in the City Article of the Journal, we have prominently set forth the growing importance of the mine. Another thing complained of is, that while people were buying up shares (for the Isle of Man) nothing of any improvement in the mine was known to any of the officials in London; and the usual report which should have reached London on Friday did not do so until the Saturday morning, and too late to be noticed in the Journal.

NEW WHEEL MARSH.—"An Unfortunate Speculator" asks us the general opinion of the mine, and whether it is likely to be divided paying. Our opinion, for which we were most grossly abused, was given pretty freely in 1863, when shares had been "worked up" to 51. each. All this will be found in the "Cornish Notes," written on the spot (2nd series). What the present condition of the mine is we do not know, and probably if we went to see we should be pitched down the shaft.

PRINCE OF WALES.—By driving by the side of the lode the ore is taken away cleaner, and at one-third less expense than by driving upon it. When last cut into it was worth 5 tons per fathom.

WEST TOLGUS.—We regret that in replying to a correspondent last week, some remarks which applied to East Tolgus were made to apply to West. Next week we are promised some particulars of both mines.

Several communications which arrived on Friday morning we are unable to answer this week.

RAILWAY CALLS.—The amount falling due in February is 420,000L.—making the total for the two months of 1866, 2,853,255L.

MONT CENIS RAILWAY COMPANY (LIMITED).

Share capital £250,000, with power to borrow £125,000 on bonds bearing 7 cent. interest.

Issue of share capital £250,000, in 12,500 shares of £20 each.

£1 payable on application; £3 on allotment; residue in calls of £1, at intervals of not less than three months.

PRESIDENT—THE DUKE OF SUTHERLAND, K.G.

CHAIRMAN—Sir JAMES HUDSON, G.C.B.

DIRECTORS.

THOS. BRASSEY, Esq., 4, Great George-street, S.W.

Duke of VALLAMBROSA, Cannes, France.

Lord ABINGER, Ecclesfield-square, S.W.

Sir M. PETO, Bart., M.P., 9, Great George-street, S.W.

Sir ROBERT DALLAS, Bart., 52, Rutland-gate, S.W.

EDWARD BLOUNT, 3, Rue de la Paix, Paris.

TERENCE SMITH, Esq., 47, Belgrave-square.

T. R. CRAMPTON, Esq., 12, Great George-street, S.W.

W. B. BUDDICOM, Esq., Pembroke, Flintshire.

ALEX. BODGREN, Esq., Ulverstone.

JOHN B. FELL, Esq., Spark Bridge, Ulverstone.

BANKERS.

Messrs. Smith, Payne, and Smiths, 1, Lombard-street, London.

Union Bank, Liverpool.

Messrs. E. Blount and Co., Paris.

The Credit Genevois, Paris.

Messrs. French and Co., Florence.

ENGINEER—James Brunlees, Esq.

SOLICITORS—Messrs. Froshfolds and Newman, 5, Bank-buildings, Lothbury.

BROKERS—Messrs. Laurence, Son, and Pearce, Angel-court, Throgmorton-street, E.C.

SECRETARY—T. S. Cutbill, Esq., 13, Gresham-street, E.C.

PROSPECTUS.

Concessions have been obtained from the French and Italian Governments for constructing and working a locomotive railway over the Mont Cenis.

This railway crosses the Alps from St. Michael, in Savoy, to Susa, in Piedmont, a distance of 48 miles, connecting the lines of France with those of Italy, thus completing the last link of a direct line of 1406 miles from Calais to the Port of Brindisi on the Adriatic, whereby an improved route will be created from France and England to Italy, Egypt, and the East, and a saving of two days effected in the transit of the Indian mail.

The Mont Cenis Railway will be constructed on the existing Imperial road, the grant of a sufficient width of which, free of charge, has been made by the two Governments, and this grant may be considered equal to a subvention of £200,000.

For working this line, the centre rail system of locomotives will be adopted, the practicability of which has been proved by trials made on the Cromford and High Peak Railway, in England, and afterwards on the Mont Cenis, where the system has recently been submitted to every variety of test before commissioners of engineers appointed by the French, Italian, English, Russian, and Austrian Governments.

These five Royal commissions, in their official reports, have concurred in expressing their conviction that the trials made on the mountain have fully proved the practicability and safety of working the proposed railway over the Mont Cenis. And the complete success of the system, having thus been established, the Governments of France and Italy have granted the concessions for the railway and the privileges asked for.

The English commissioner, Captain Tyler, R.E., in his report to the Board of Trade, published by order of the House of Commons, states that this scheme for crossing the Mont Cenis is, in his opinion, practicable, both mechanically and commercially, and that the passage of the mountain may thus be effected, not only with greater speed, certainty, and convenience, but also with greater safety than under the present arrangements.

The interest they feel in an enterprise of so great importance to England, France, and Italy, as well as to the future of railway construction in all countries, has induced the directors to lend their aid to this undertaking. They wish it to be known that no contracts for works or supply of materials have been entered into, and that the works of the line will be executed with a view to secure the best conditions for the company, and the greatest possible economy.

After careful consideration of the estimates prepared by Mr. Brunlees, the directors have decided themselves that the cost of the line will not exceed £375,000, or £8000 per mile, including rolling stock, payment of interest at 7 percent, during construction, and preliminary expenses.

In the estimates of working expenses the directors have made ample allowance to provide for all the special circumstances of gradients, curves, and climate.

The gross revenue produced by the existing traffic on the road, calculating only the same annual increase as that of the past year, and taking no account of the increase of traffic that invariably results from the opening of a railway, will be sufficient, after paying working expenses and 7 percent. interest on bonds and shares, to reimburse both bond and share capital, and leave a profit of £233,000 at the end of seven years.

The period for which the concessions are granted extends until the opening of the Great Tunnel of the Alps, which, taking the most favourable view of the time required for its completion, will give at least seven years of working of the Mont Cenis Railway, from which the following results may be expected:—

Revenue for seven years.....	£ 948,717
Value of plant at end of seven years	70,000
Total	£1,018,717
Working expenses	£284,613
Interest at 7 per cent.	125,440
Capital paid off	375,000 = £ 785,053

Surplus profit after paying the capital and interest..... £ 233,664

The profits of the company in each year are to be applied:—

1st.—In payment of interest on bonds.

2d.—In payment of a dividend of 7 per cent. per annum upon the shares.

3d.—For the purpose of creating "a Bond Redemption Fund."

4th.—After the Bond Redemption Fund is completed, for the purpose of creating "a Bonus Fund," to be applied in payment of a bonus of £20 per share. After which payment the preferential dividend of 7 per cent. per annum will cease in respect of such shares.

5th.—One half of the residue, or surplus profits, in each year will be divided among the shareholders, and the other moiety will be paid to the concessionaires.

It will be seen that the concessionaires receive no compensation for the value of the concession which they transfer to the company until the reimbursement of the capital within the seven years, by annual instalments, as above, has been provided for.

A railway connecting Italy and a population of over 20 millions on the south with France, and a population of 40 millions on the north of the Alps, between which countries there at present exists no other land communication than by diligences and carts or sledges, must have the effect of largely increasing the traffic, seeing that the journey over the mountain would be made by the passenger trains in 4½ hours, instead of the 10 to 15 hours; and by the goods train in 8 hours in place of three days, as at present.

There may also, in addition, be expected the carriage of the fast overland Indian Mail, and the passengers travelling with it; and considerable quantities of merchandise now conveyed between Italy and France, via Marseilles.

A further annual increase of 10 per cent. due to the facilities afforded by the railway, may therefore be assumed; and the revenue thus accruing would give the shareholders a profit of 18 per cent. per annum on the capital employed, in addition to the 7 per cent. received as interest on the shares until reimbursed. After the above period, and for the remainder of the concession, the profits of the railway would consist of the entire amount of net earnings, clear of all interest and capital charges.

Copies of the prospectus and forms of application for shares may be had of Messrs. LAURENCE, SON, and PEARCE, 7, Angel-court, Throgmorton-street; and also of the secretary, T. S. CUTBILL, Esq., 13, Gresham-street, E.C., where copies of the concessions, and reports of the Government Commissioners may be seen.

BARROW HEMATITE STEEL COMPANY (LIMITED).

HEAD OFFICE AND FURNACES, LANCASHIRE.

BRANCH OFFICES,

No. 2, GREAT GEORGE STREET, WESTMINSTER.

No. 73, ST. VINCENT STREET, GLASGOW.

threat of ulterior measures, and a few days afterwards declared the whole coast of Chili under blockade. By the timely arrival, however, of Commodore HARVEY, the commander of our fleet in the Pacific, the blockade was confined to such ports as the vessels at PAREJA's command could hold. So the following ports were declared blockaded, and a ship of the Spanish fleet placed in each:—Caldera, Coquimbo, Iquique, Valparaiso, Tomé, and Talcahuano, the admiral reserving to himself the privilege of blockading any of the smaller ports. Now, the effects of this war on the copper trade of the world are so momentous, and the general knowledge of Chili being limited to the simple fact that she supplies Europe and Asia with more than half of all the copper they consume, it is necessary, in order to understand what the blockade of such a coast means, that we should know first something of its extent, physical character, productions, and population. The Republic of Chili borders the Pacific Ocean, and stretches some 1200 miles from end to end. Its width is limited by the seaboard on one side, and by the Andes on the other. And its breadth varies from 100 to 200 miles as the Andes approach or recede from the shore. At its southern limit the belt of land between the mountains and the shore is wide, but as we travel northward it becomes narrower and narrower, until the Cordilleras abut on the shore, just as we pass from Chili into Bolivia.

The appearance of Chili to the traveller's eye may be best described by the productions of its soil. At Concepcion, the most southern city of any importance in the republic, the ground is covered with the richest and most luxuriant foliage. Journeying northwards, at Valparaiso, the hills are thickly clad with stunted brushwood, and the ground generally is poor and bare. At Coquimbo the brushwood entirely disappears, and there is no vegetation but the cactus, and a few blades of wiry grass, except when there is a shower of rain (a most rare occurrence), and then a perfect bed of annuals spring into life. As might be inferred from such a climate, the southern parts of Chili are peculiarly adapted for the production of cereals, and such we find the country produces in perfection, for in no part of the world is more beautiful wheat grown than in Chili. The amount of corn she annually exports is yearly increasing, and the quantity last year amounted to 46,000 tons, according to the Government returns. This corn-growing country is entirely, or almost entirely, confined to those parts south of Valparaiso, and so it happens that the South feeds the North with bread, whilst the North pays the South with money extracted from her mineral deposits. Under such circumstances, free communication between the ends of the Republic is a matter of existence to the North. Hitherto at peace with all the world, and devoting herself, with great success, to the enlargement of her commerce, to the working of her mines, and to the production of corn, not much attention has been devoted to perfecting land communications between city and city, as from the scarcity of provender and water, as also from the mountainous character of the country, communication by sea has always been the easiest and cheapest means. By considerations such as these can we alone understand what is involved in the bombardment of the coast of Chili by the Spanish fleet.

IRON SHIPS' COMPASSES: THEIR "DEVIATION" AND REMEDIES.

BY EVAN HOPKINS, C.E., F.G.S.

[Abstract from the Paper read at the Royal United Service Institution on Jan. 29.]

On the Position of the Steering Compass on board an Iron Ship.—The directive property of a magnetic needle depends solely on the direction of the terrestrial magnetic force. If, therefore, the latter be affected by any disturbing influence, whether by the iron of the ship, or by magnets placed in the vicinity of the needle, the former cannot retain its normal meridional position. This fact does not require further explanation, as it is capable of being easily proved by very simple experiments, by means of magnets.

It follows from this that a compass for steering correctly should be placed in such a position on board a ship as would preclude the possibility of any disturbing action from the steering gear and other iron employed on board. Precautions are taken to construct the binnacles of wood and brass, and avoid iron, but seldom any regard is paid to the position in which the needle should be situated. Unless the compass is placed several feet from iron, so as to be free and beyond the reach of local attraction, it cannot conform to the meridional prime mover.

In merchant ships the steering compass is generally placed near the stern-post, the rudder-head, the tiller, and the iron spindle of the steering-wheel, all of which are more or less magnetic. This is a position where the local attraction and disturbances are often excessive and changeable, and in which no navigating compass should be placed.

In the Memorandum of the Royal Society it is "recommended that every iron passenger ship should be required to have a standard compass distinct from the steering compass in a selected situation at a certain distance from all masses of iron;" "and to use this as the navigating compass, prohibiting the use of a steering compass."

If the incorrect steering compass be not taken away, and some convenient arrangements made by which the steersman can steer by looking at the standard, the evils will not be removed. A wreck has recently occurred of an iron steamer, in which was placed a standard compass 20 ft. high, fastened to the mast, free from all attraction, and found to be exceedingly correct. The steering compass, on the other hand, was surrounded with strong magnets and iron chains, and consequently rendered uncertain in its movements and direction, yet the latter was used for steering! In the Merchant Shipping Act it is provided "that every sea-going steamship employed to carry passengers shall have her compasses properly adjusted from time to time," &c. Strictly speaking, compasses cannot be adjusted or made to act correctly by any artificial contrivances, as already demonstrated, and, therefore, should not be tampered with. It should be provided that every sea-going steamship employed to carry passengers should have her steering compass placed at a proper distance from the steering gear and from all masses of iron, and such arrangements made as would enable the helmsman to see the compass card, like the dial of a clock, many feet from him. This is the only way to remove the danger, as it is well known that steersmen will only be guided by the steering compass, and not by the standard; the latter being generally very inconveniently situated for the man at the wheel.

Large sums are often spent in ornamental brass binnacles, chain boxes, and magnetic compensators, whilst the compass is placed in a confused magnetic medium. The compass-box may be placed at a small cost at the proper height, or fastened to the mast from 10 to 20 feet high, and thus be free from all disturbances; it could then be depended upon for steering. The outlay would be comparatively small, and the benefit very great. Two compasses may be placed on the mast, one on each side, about 6 feet apart, with their cards seen underneath, like the dials of clocks, and illuminated at night, so as to be plainly read at 20 feet distance by the steersman. By means of this arrangement the helmsman will have the constant and full benefit of the presumed accuracy of a standard compass to steer by, which cannot otherwise be ensured in stormy nights in the mercantile marine, whatever they may do in the Royal Navy. Mr. Hopkins has had a steering compass of the above description made; it was on the table, the card of which was plainly seen at 20 feet distance.

A proprietor of a new iron ship at the meeting applied to Mr. Hopkins to depolarise his vessel, so as to avoid the necessity of "swinging." Mr. Hopkins agreed to do so, and also to place a steering compass on board which would not be affected by the ordinary iron of the ship, and thus remove all the difficulties and dangers represented in the Memorandum of the Royal Society.

ANILINE, OR COAL TAR, COLOURS have now been extended in number, so that all the colours of the rainbow, and all the shades, can be obtained from coal tar. Aniline was discovered by Unverdorben in 1826, who prepared it by the destructive distillation of indigo. It is now obtained in small quantities directly from the destructive distillation of coal, as in gas-works, but is generally manufactured from the lighter coal tar naphtha. When the naphtha is rectified, the portion which distils over at a temperature of 180° Fahr. is benzole, and this substance was discovered by Faraday in 1825. By the action of strong nitric acid, the benzole is converted into nitro-benzole, and this latter, when agitated with water, acetic acid, and iron filings, becomes aniline. By the action of oxidising agents, such as chloride of lime, bichromate of potash, chloride of mercury, &c., the aniline, which is colourless by itself, can be transformed into all shades of violet, mauve, magenta, &c. By the researches of Hofmann, the number and beauty of the aniline colours have been much increased. Whilst numberless shades of reds and purples can be obtained, there is a splendid green, called verdine, discovered by Eusebe, and which remains a true, pure green even by candle or gaslight; a blue which is as clear as

opal, a good yellow, and a fair black. In short, dyes of all hues can be obtained from aniline, which, in its turn, is procured from the coal tar. The intensity of these aniline colours may be indicated by the fact that one grain of magenta in a million of water gives a good red; one grain in ten millions of water exhibits a rose pink; one grain in twenty millions communicates a blush to the water; and on grain in fifty millions tinges the water with a reddish glow. The powerful tintorial virtues of these dyes may be learned from a circumstance which occurred during the passage of the *Great Eastern* between Liverpool and New York, when the sea was observed to exhibit a crimson hue for some distance around the vessel, and when it was afterwards discovered that the bloody sea owed its colour to a wave having stove in a plate of the *Great Eastern*, and thus the water got access to certain vessels which contained magenta.

SHIPPING DISASTERS.—The number of vessels engaged in the regular carrying trade, which suffered from wreck or casualty in 1864, was 1667. If this number is sub-divided, it will be found that more than half of it is represented by unseaworthy, overladen, or ill-found vessels of the collier class, chiefly employed in the coasting trade. Thus, the number of coal-laden ships wrecked in 1864 was 523, against 614 in 1863, 593 in 1862, 659 in 1861, 510 in 1860, and 537 in 1859. The number of colliers wrecked in ballast in 1864 was 99, as compared with 114 in 1863, 128 in 1862, 153 in 1861, 71 in 1860, and 81 in 1859. The number of vessels carrying metallic ores in 1864 was 126, against 146 in 1863, 113 in 1862, 117 in 1861, 94 in 1860, and 140 in 1859. The most fatal points for shipwrecks on the eastern littoral appear to be the Norfolk and Suffolk coasts; the Corton and Scroby Sands especially have involved the loss of many a ship. As the screw colliers progress, the old class of colliers, many of which are more or less unseaworthy, will gradually disappear; but another class of accidents is then to be apprehended—collisions, of which the screw colliers have been somewhat unfortunately productive.

CRENVER AND WHEAL ABRAHAM MINING COMPANY.

The Master of the Rolls has dismissed the bill filed by this company against the Miners' Bank, Truro, with costs, without prejudice to any other bill which the company may be advised to file. The prayer of the bill was that an injunction might be granted to restrain the bankers from taking and entering into possession of the lands, works, property, and effects of the company by virtue of a mortgage made by the company in favour of the bankers on Jan. 25, 1865, and that such deed might be declared void and ordered to be delivered up to be cancelled. His lordship observed that this was a striking instance of the great caution that should be exercised in dealing with a public company. On Jan. 23 of last year the directors then in office executed a mortgage to the bankers, which was repudiated by the directors who succeeded them, on the ground that the directors' making of the mortgage was *ultra vires*. The two questions arising were, whether the deed was authorised by the construction of the company, and whether the money advanced was applied for the benefit of the company.

The company was formed with a nominal capital of 150,000*l.*, in 30,000 shares, of 5*l.* each, and was duly registered. Shortly afterwards a contract was entered into with Mr. Sandiford Featherstone Griffin to supply plant and machinery, &c., for 85,000*l.* Of this one-half, or 42,500*l.* was to be paid to Griffin, in 17,000 shares, representing 2*l.* 10*s.* paid. Griffin was to complete the works by Aug. 1, 1865, and in the meantime the payment was to be made monthly, less 20 per cent., which was retained by the company as security for the fulfilment of the contract. Considerable sums of money were advanced by the bankers to the contractor, and also to the company—14,000*l.* being due from the contractor and 1200*l.* from the company.

In this state of things, the deed of Jan. 23, 1865, was executed, which recited that Griffin had received 19,578*l.* from the company in part payment of works executed and materials supplied; also 6266 shares (2*l.* 10*s.* paid), and 1423 shares (2*l.* 15*s.* paid), and that a large sum still remained due to Griffin from the company under that contract. And further, that Griffin was possessed of certain property, engines, plant, &c. And further, that Griffin was indebted to Willyams and Co. in the sum of 14,239*l.* 5*s.* 6*d.* for moneys advanced to him for the purposes of the said contract, and that the company were indebted to Willyams and Co. in the sum of 1272*l.* 1*s.* 7*d.* for moneys advanced. And further, that Griffin and the company had applied to Willyams and Co. for further advances to them respectively, to enable the said contract to be carried out and completed, which Willyams and Co. had agreed to do on repayment of the sums mentioned, with interest; and also of any other sums advanced by Willyams and Co., either to Griffin or to the company.

It is witnessed that, in pursuance of this agreement, and in consideration of the sums of 14,239*l.* 5*s.* 6*d.*, and 1272*l.* 1*s.* 7*d.*, owing to Willyams and Co., Griffin and the company did thereby jointly and severally covenant with Willyams and Co. that they, the said Griffin and the company, or some of them, would, on Oct. 23 next, pay to Willyams and Co. the 14,239*l.* 5*s.* 6*d.* and the 1272*l.* 1*s.* 7*d.*, together with all such other and further sums as shall have been advanced by them in the meantime to Griffin or the company, with interest on such advances from the date of the advance up to Oct. 23. The mortgage further witnesses, that Griffin did assign to Willyams and Co., all moneys due or to become due to him from the company under the contract, and also all and singular the steam-engines, plant, and materials on the mine; all timber and other property at Truro, and the Wheal Alfred engine, appointing Willyams and Co. his attorneys to receive payment. And the mortgage also witnesses that the company did assign to Willyams and Co. all and singular the tin, copper, and other metallic minerals, &c., raised (subject to the rights of tributaries), and all and singular the buildings, engines, machinery, plant, and materials, and other property and effects then being, or which, during the continuance of the security, might be upon the mine.

And the said mortgage agrees and declares that if default be made on the said Oct. 23, it shall be lawful for Willyams and Co. to take possession, but that until possession should be taken the premises should remain in the possession of Griffin and the company. And Griffin covenanted with Willyams and Co. to complete the contract according to terms. And the company covenanted to pay all moneys to Willyams and Co. instead of to Griffin. There is a power to sell, but Willyams and Co. were not to exercise the power unless the company made default of the payments from time to time becoming due to Griffin under the contract. Willyams and Co. were to give notice of intention to exercise their power of sale. In the event of proceeding to a sale, Willyams and Co. were to reimburse themselves for the expenses attending it, and to apply the remainder to the reduction of the debt and interest. It was provided that the total sum to be secured by the mortgage should not exceed 22,000*l.*

The learned judge remarked that, having regard to the Articles of Association of the company, the question was whether this was a valid instrument? This would depend upon the construction which was to be put upon the 81*s.*, 83*d.*, and 84*s.* articles. His lordship read the articles, which were to the effect—81*s.*, that no purchase, sale, contract, or agreement, sanctioned by a general meeting, should be afterwards impeached; 83*d.*, that the directors might raise money on debentures, &c., and might create mortgages, and pay them off, and create new ones, and so on; and 84*s.*, that all these mortgages might be made to include power of sale, &c., as the directors might think fit. This mortgage was executed in this form, and the learned judge considered it was difficult to say whether the power contained in the articles was ample for the purpose; but that, on the other hand, it could scarcely be supposed that form alone was referred to. It was a question whether the deed does not make Griffin the agent of the company, and it would be difficult to hold that Willyams and Co. could not claim for the works properly done. It was his opinion that the mortgage was a valid security, and he could not, therefore, order its cancellation. The bill contested the validity of the deed altogether, on the ground of fraud, and this the plaintiffs (the company) had altogether failed to establish; the bill was, therefore, dismissed, with costs, without prejudice to any other bill which the company might be advised to file.

We hope to be enabled to give the *verbatim* report of the judgment, as delivered, in next week's *Journal*.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—Relative to the judgment delivered this day in the case of the "Crenver and Wheal Abraham United Mining Company (Limited) v. Willyams," I beg to inform you that notice of appeal has been given by the company on advice of counsel.

70, Cannon-street West, London, Feb. 9.

ROBERT SHARP, Sec.

and the personal guarantee of some of the directors as collated securities. In 1862 the company was wound-up, and the property was purchased by the Earl of Shrewsbury. Subsequently actions were brought against the plaintiffs and the company for the recovery of so much of the money as was due when the present bill was filed. The plaintiffs prayed that accounts of the company might be taken, that the property might not be further molested upon the payment of the amount remaining due, that the bank might be restrained from prosecuting the claim against the plaintiff, and that a receiver of the property might be appointed. The case was brought to a close by it being mutually agreed that Mr. Baller, the manager of the Alliance Bank, should be appointed receiver, and should take possession of the property, and that the moneys received should be paid into Court.

REPORT FROM SCOTLAND.

GLASGOW, FEB. 7.—English speculators are not done with this market yet; however, there will be difficulty in realising above the high prices now current. If they continue to purchase and absorb everything, they may find themselves in a dilemma when they come to realise. In the meantime, the present high prices are interfering with our market, and sending orders, offered here first, to the South. FOUNDERS are also in receipt of daily orders which the South are absorbing on account of the high price of pigs here. Prices of MANUFACTURED IRON are unchanged, but makers in most cases have succeeded in getting an advance, and are inclined to hold firmly to the present quotations, were it not that prices are easier in the South, and shipping orders that would have been placed here are taken at less money in Liverpool. It is difficult to see how lower prices can be accepted; and with the present price of pig-iron orders are rather scarce. The shipments of PIG-IRON from the Scotch ports for the week ending the 5th inst. were 7632 tons, against 10,669 tons last year—total till this date 49,438 tons, decrease 5498 tons. The fluctuations in the market during the past week have neither been so violent nor so rapid as the previous week; the lowest price touched was 66*s.* 4*d.* cash on Thursday, and the highest 68*s.* 9*d.* on Friday, since then the price has been rather in favour of buyers; 67*s.* 3*d.* cash was accepted yesterday. To-day the market opened dull, 67*s.* 3*d.* cash accepted, but gradually improved up to 67*s.* 9*d.* cash, and 68*s.* 1*d.* month paid, closing buyers at the last. Makers' iron firms at 67*s.* 9*d.* for No. 1, and 67*s.* for No. 3; Gartsherrie, No. 1, 69*s.*; Coltness, No. 1, 70*s.* per ton.

We regret to state that the Gartness Iron and Steel Works, near Airdrie, have been brought to a sudden stand. It will be recollect that they were purchased by an English joint-stock company (limited) some time ago, and had the appearance of a prosperous future. Hopes are entertained of their resuscitation, but fears are also expressed that the suspension will be permanent. The balance-sheet of the company has been sent to London for the inspection of the partners, and it will depend upon their answer whether the business will be resumed. It was only a small concern, consuming about 300 tons of pig-iron a month. It is pleasing, on the other hand, to report that two new malleable ironworks are about to be erected in the vicinity of Wishaw, the ground for the first having been already measured off. These works will employ several hundred hands. The Messrs. Pickering, wagon builders at the same place, we are happy to notice, are enlarging their premises, having more work on hand than their limited means can accomplish. When the extensive alterations and additions are completed, they will be able to execute nearly double the work of the previous year.

The miners' eight-hours movement looks as if it were going to prove a success, as it has already been pretty extensively adopted in the mining districts, and in others it is to begin with the next pay. An extended agitation is going on all over the county, and meetings have been held with the miners at Larkhall, Baillieston, Glasgow, and Wishaw, which were well attended, and the men seem all to approve of the restricted hours. Arrangements have also been made for visiting the colliers in Falkirk, Clackmannan, Fife, Ayrshire, and Mid-Lothian, for the purpose of propagating the movement. At the collieries which have adopted short time there is a reduction of nearly a ton of coals on each man's work per day, which will bring his advanced pay down to 4*s.* If this may be taken as an average, the reduction on the output of the year cannot be less than 21*s.* million tons of coal, and the price, as a consequence, will be considerably enhanced. The men at Stevenston are still on strike, supplied by their fellow-unionists with 10*s.* a week. Here masters and men seem equally resolute in holding out, but the latter will take courage from the Clyde men having got the advance, and the Govan men having the promise of it from the 19th inst. The Govan men, however, displeased with this offer,

"Turn their grumbling heads away,

And quarrel with their feed of hay,

Because it is not clover!"

They have refused the liberal terms of the masters, and will not lift a pick till they are put on an equality with the Clyde men. In the meantime, the furnaces at Govan and Eglinton are being supplied from the pits of sale coalminers, but these will also be struck if it is considered necessary to bring on a crisis.

In the rates for COALS there is no change to report, and all this fermentation amongst the colliers, for an abridged day and an increase of pay, is not likely to affect the price of coals, as the dispute is confined to the colliers supplying the iron furnaces with coals for smelting. The exports for the week ending at 18,600 tons, against 25,800 tons in the same week last year. This deficiency is attributable to the stormy weather which has prevailed since the year commenced, and to the deficiency of railway plant on the mineral lines which run off from the Caledonian, North British, and Glasgow and South-Western Railways. There is also a deficiency of vessels, which the storm of the past week has prevented from putting to sea; but we are glad to notice to-day that the prevailing westerly winds have brought more vessels into port during the last few days than had previously arrived during the whole month of January. The demand is good, full prices are being paid, and calm weather will bring in coasters from the various ports which the stormy weather had detained.

The issues in the action of damages, raised in the Second Division of the Court of Sessions, at the instance of Ranben and Phileman Sykes, machine makers, Huddersfield, against William Wilson and Sons, woollen manufacturers, Bannockburn, for alleged infringement of patent for improvements in machinery for spinning, twisting, and roving wool and other fibrous substances, have been adjusted and will shortly go to trial.

We much regret to record the death of Mr. DAVID ELDER, the father of marine engineering in Scotland. He died on Thursday morning, at his residence here, at the advanced age of 81 years. For a long series of years Mr. Elder managed the great engineering and shipbuilding establishment of the world-renowned firm of Robert Napier and Sons, and to no single individual is the Clyde more indebted for its shipbuilding celebrity than to the venerable gentleman whose death we now sorrowfully record.

REPORT FROM MONMOUTH AND SOUTH WALES.

FEB. 8.—Since last week's report the Iron Trade has shown but slight features of change. The continued depression in the money market exercises an unfavourable influence, and had it not been for the *bona fide</i*

proprietors and ironmasters, in taking notice of rates of tonnage, and other matters affecting the staple trades of the district.

The advantages of South Wales for iron shipbuilding has often been pointed out in the columns of the Journal, and as a further proof of the correctness of the idea, it may be stated that the Llanelli Iron Shipping Company have been able to declare a dividend of 71. 10s., making a dividend of 15. per cent. on the past year.

The following local bills have passed the Standing Orders during the past week:—The Pembroke and Tenby Railway; Cambrian Railways (steam-boats); Barry Railway (alterations); Wrexham and Minera Railway; Afon Valley Railway; Cefn, Acrefair, and Rhosneigr Works; Ebbw Vale, Beaumaris, Sirhowy, and Victoria district Water. No appearance was entered to the Cardiff and Newport Railway and Pier, and the Vale of Llangollen Railway. The Standing Orders were declared not to have been complied with in the Great Western Railway (further powers); The petitions of the London, Worcester, and South Wales Railway (deviations); Brecon and Merthyr Tydfil Junction Railway (branches, &c.); and Brecon and Merthyr Tydfil Junction Railway (amalgamations).

In last week's Journal was noticed the proceedings of the Gloucester Chamber of Commerce in reference to the Midland and South Wales Junction scheme, the further consideration of which was adjourned, to enable Mr. Pinnegar to produce the report of the engineers of the Great Western, the Midland, and South Wales Railways. The adjourned meeting was held on Friday last, when the above-mentioned report was produced.

"We find (it states) that the gradients, curves, distances, and general amount to be expended on the two schemes of the section are very nearly the same. Mr. Ward's line (Midland and Great Western) has rather the most favorable gradients. The plans of this line do not show a branch to the Forest of Dean, but, assuming such a branch to be made in both cases, the cost of each, if calculated at the same price, will amount to about 790,000. The great difference in principle between the two plans is that one (Mr. Ward's) proposes to cross the Berkeley Canal, and the Severn at a high level, and the other (Mr. Liddell's) by a draw or swivel-bridge at a low level. Mr. Liddell has produced to us an amended section, showing how the line may be carried under the Berkeley Canal, the ascending gradient being 1 in 200. There are some advantages and disadvantages attached to each scheme as deposited, but it is not at present necessary to enter into them, because, after mature reflection, we would suggest that a further examination of the district be made, and more perfect plans be produced. In the event of either of the present schemes being now proceeded with, they must be amended in another session, so that no time would, in fact, be lost by the delay. We are the more impressed with the propriety of this course because the contemplated outlay seems to us to be extremely large, and to require careful consideration. And having reference to the fact that there is one scheme already authorized—the Severn Junction—proceeding to effect some of the objects contemplated by the other projects, and also remembering that the late Mr. Brunel intended to cross the Severn at Hock Crib, so as to unite the South Wales with the Great Western at Standish or Stonehouse, at a cost which was assumed to amount to about 300,000. We think that the ensuing summer would be beneficially occupied in bringing forward some other route which might seem calculated to effect a more convenient junction between the lines on the east and those on the west of the Severn at the least possible cost consistent with the public convenience and the objects to be attained." After some discussion, a resolution was passed to the effect that the Midland and Great Western Junction having been abandoned, and the Midland and South Wales Junction scheme appearing to accomplish the same object as the former scheme, which the Chamber has already supported, the Chamber, upon receiving an assurance for the making of the branch line to Sharpness, should appoint a committee to urge upon the Great Western and Midland Companies the expediency of using any power they possessed to cause the abandonment of the Great Bridge and the Severn Junction schemes, and the substitution of the Midland and South Wales Junction; and that the Chamber, wishing to co-operate with the Canal Company, should join their delegation.

A new sheet-iron company, called the Garth Iron Sheet Company, are about to open extensive new works at Ebbw Vale, near Newport. The building will be, according to the plans, 250 feet by 60 feet.

Mr. William V. Lister has retired from the Vernon Tin-Plate Works, Briton Ferry, and Mr. E. S. Morris has joined the firm, which will now be carried on under the style of David Morris and Co. The report that Mr. R. Smith (late of Dafen Tinworks) had joined the partnership is unfounded.

DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

FEB. 8.—There is little alteration in the state of trade in North Derbyshire, the various ironworks in particular being well supplied with orders for most sorts of iron. The demand for coal, taking into consideration the very open state of the weather, is also good, and the Midland Company is from that, and some new localities, carrying an increased tonnage. The Cobnab Colliery, near Chesterfield, which was put up for sale by auction some short time since, without eliciting an offer, has passed into the hands of the Finance Committee, who were the mortgagees for a large amount. It is now in the market, but with the difficulties which overpowered the old company it is to be feared that it will not be so very easily disposed of. With the expenditure of a large sum of money there is little doubt but it would ultimately turn out a profitable concern. The Atlas Iron Company (J. Brown and Co.) are now actively engaged in the production of heavy armour plates for the home Government. They have just received an order for 300 tons of plates of the extraordinary thickness of 9 in. They are for the new armour ship, *Hercules*, and will be capable of resisting any shot which can be fired at her. They are intended to act so as to defend the heavy battery of the ship from missiles of every description. With all the improvements in plates and armour, the *Hercules* will, probably, be the most complete as well as invincible vessel afloat, and a fitting representative of the great maritime power to which she belongs. Heavy castings of various sorts are being turned out largely in the neighbourhood of Sheffield, and during the week the beam of a steam-engine, intended for a local colliery, weighing upwards of 40 tons, has been sent off.

The Iron and Coal Trades throughout Yorkshire remain in the same condition as previously noticed. At Milton and Elsecar the firms there are tolerably well off in orders for bars, sheets, hoops, and rails. They have also obtained a contract from Government for plates for the East Indies. Machine and engine makers are all actively employed, there being a large and increasing demand for their production. In South Yorkshire the coal trade is by no means brisk, and in consequence one or two firms are obliged to play to-day. At London and at Doncaster a large number of loaded wagons are awaiting delivery. The dispute between Messrs. Newton, Chambers, and Co. and their workpeople is in the same state as it was last week, the men being out, and receiving pay from the funds of the Union.

There is a good enquiry for coke for Lincolnshire and Staffordshire for iron-making purposes. The Frodingham Iron Company, who some time since purchased the patent coke-ovens at the Peniston Station of the Manchester, Sheffield, and Lincolnshire Railway Company, are now producing a large quantity of coke. It is expected that the whole of the ovens, 60 in number, will be in full heat in the course of a week, whilst several new ones will be added to them. From the construction of the ovens, the quality of the coke is remarkably good, much superior to that made by the ordinary ovens. The coke is brought out in a solid mass, of a silvery cast, whilst the entire range of ovens, having a flue running the entire length, do not emit any smoke, which is sent into a large chimney about 70 feet high.

In the Cleveland district the iron-makers are very busy, having succeeded in obtaining some heavy contracts for India and other places. The work being turned out for home consumption is also large, the demand for some of the principal railways being extensive, whilst the ship-yards on the Thames and other ports are also ordering largely in plates. Several new works are in course of construction, and one or two will shortly be completed. The trade of the district was scarcely ever better, and there is every prospect of its continuing so for a long time, as the masters are unable to stock, the demand being in excess of the means of supply.

In Lancashire the business doing in coal and iron continues good, whilst the machinery shops were scarcely ever better supplied with orders. Engine coal continues in active request, showing that the staple trade of the district is in a healthy state. Steam coal for export finds a fair sale on the Mersey. The shipbuilding is also better than it has been, and the various works at Liverpool promise to be busy as the season advances. Higher up, at Preston, which is only a small port, there is also a good deal of activity in the shipbuilding. On Saturday last a fine iron-hulled barque was launched there from the yard of the Preston Iron Shipbuilding Company. It is intended for the port of Liverpool, and is the largest sailing vessel which has ever been launched at Preston.

Looking at the present state of the iron trade, and the large business that has been done with America, the feeling of uneasiness which has for some time existed as to the course likely to be adopted by the American Legislature on the question of increasing the present duty on iron, is by no means allayed. Advice by the last mail shows that the ironmasters there are straining every nerve to obtain a prohibitive duty, and their organ, the *Iron Age*, is by no means despondent on the subject. On the other hand, the arguments of that paper have been only met by the *New York Evening Post*, as well as by other journals, who contend that, with the immense supplies of ironstone and coal, with traffic facilities to all parts of their vast country, the American masters ought to be able to compete with their English brethren. The causes of dear iron is attributed to the want of improvements in the machinery, furnaces, and economy in the consumption of fuel and in labour, the heavy salaries paid to presidents and governors, the exorbitant royalties, and other means of obtaining excessive incomes." It is a usurpation, therefore (continues the journal alluded to) for those who have obtained the legal control over these God-given treasures to demand that what may cost them a mere trifling should be legislated into fortunes, under the pretext of affording protection to labour." It is evident that the more the subject is ventilated in the States, the less likelihood is there of the iron masters there succeeding in taxing the public for their own benefit, and the prevailing feeling is that their efforts will be unattended with success.

There is much dissatisfaction existing amongst many colliers in Yorkshire and other counties, owing to the interference of the Miners' National Union. A meeting of the colliers employed by the Bowring Iron Company was held on Monday last, when representations were made by the men that their wages had been gradually and indirectly reduced from 2s. to 3s. per week. The men agreed to make a representation to their employers, with the view to have their wages re-increased. The delegates at the Miners' Union are very busy in all the mining districts forming branches to aid the parent society. The delegates are exceedingly cautious in their movements, as they desire to avoid coming in contact with the masters or their managers. They generally hire a room at a convenient public-

house, and having done so, a number of men favourable to Unions are assembled together, a lecture or address is delivered, after which a local or branch committee is formed, and as many as possible are induced to put down their names and money as members, after which the delegate walks away to the next colliery neighbourhood rejoicing. In the new locality the same order is gone through. A strike of a large number of miners had been nearly brought about at an extensive colliery in Derbyshire by the effect of the pernicious influence of one of these delegates. Happily, the manager of the works, who was a man of great discretion in the management of large bodies of workmen, averted it by his timely action. The colliery at the Shireoaks Pit, near Worksop, the property of the Duke of Newcastle, are on strike for an advance of wages, and it was thought the dispute would have been easily settled, but the Union discovered a hitch in the 5 per cent. terms proposed, and the men now remain out.

The ironworks in the Erewash Valley are exceedingly busy, the Butterley Company in particular having several very large contracts to execute. At Staveley the greatest activity prevails, not only at the collieries, but in foundries, and the same may be said of Clay Cross. Very considerable uneasiness has prevailed with regard to the health of the principal partner in the Clay Cross firm, Mr. William Jackson, M.P., who has been suffering severely in London from bronchitis, but having seen a letter from the hon. Member's son, we are enabled to state that Mr. Jackson is out of danger, but it is anticipated that some time must elapse before he will be fit for active business, parliamentary or otherwise.

The Derbyshire lead miners continue to be unmoved so far as the share market is concerned; but the difficulties of driving to the vein at the Mill Dam and Eyan are great. The directors of each undertaking, however, are working earnestly to get into good work again, and until they accomplish this end the share stock will remain quiet. Most of the mines worked by private individuals are doing tolerably well, but they are content with mostly eking out the ore left by the old miners.

The stock and share markets are quiet, except for bank shares, which are enquired for. The Sheffield Banking Company have just declared a dividend of 20s. per cent. on the year.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

FEB. 8.—The Iron Trade is, no doubt, somewhat affected by the high rate of money, and the feeling of anxiety as to the future course of many of the new enterprises which have been brought into existence under the principle of Limited Liability. The suspension of Mr. Saven, the great railway contractor, will have a bad effect. Orders are rather held back, and given out sparingly, yet the works, as a rule, are fairly employed, and North Staffordshire is fully as well off as the South of the county, particularly in respect of orders for bars. The Pig-Iron market is in a somewhat uncertain state. Buyers have not readily consented to give the prices demanded by makers of pig-iron, and yet the deliveries are not so prompt as is desired under past contracts. Transactions are avoided as far as possible, and future prices are a matter of some uncertainty. On the whole, however, there appears an anticipation that the vendors of pig-iron must terminate abate their demands.

A terrible boiler explosion occurred yesterday at the London Works, Smethwick, of which Messrs. Bessemer and Vaughan, manufacturers of angle and other moulded iron, are the proprietors. The works form part of what was formerly those of Messrs. Fox, Henderson, and Co., who erected the late Sir Joseph Paxton's Crystal Palace Exhibition building in 1851. The boiler which burst belonged to the rolling-mill. It was new, was egg-shaped, 22 feet long, and 5 feet in diameter. Between 5 and 6 o'clock, when about 100 persons were in the works, a sudden explosion terrified the whole neighbourhood, and it was at once seen that the boiler had burst. One part was driven downwards, and the other across the canal, striking the opposite bank, and bounding off a distance of some 60 yards from its seat. A good deal of damage was done, and four men were injured, one very seriously from being badly burnt, and another received severe injuries. It was a most happy circumstance that the force of the explosion drove the boiler from the works, or the consequences might have been terribly disastrous. At present nothing is known of the cause of the explosion.

A serious explosion occurred on the same afternoon at the blast-furnaces of Mr. J. H. Hickman, at the Graveland Ironworks, Tividale, near Dudley. A furnace was about to be tapped, when one of the tuyeres through which the blast is conveyed into the molten metal burst, and the water which is contained in the tuyeres to keep them from melting at once bursting into steam, forced out a quantity of the melted iron upon the men employed at the furnace. Two men were so dreadfully burnt that they died the next morning, and two more received very serious injuries. The case will, of course, receive careful investigation by the Coroner.

Some remarks were made last week as to improvements in furnaces, with a view to the consumption of smoke. It is stated that the calcining-kilns, adopted by Messrs. Addenbrooke and Co., at their Rough Hay furnaces, are doing their work in a thoroughly effective manner, and have been proved to be economical in action, and are worked with comparatively little trouble. There is also much less smoke formed by this method than in the old and still common plan of calcining in open heaps. The same firm have successfully accomplished the utilisation of the waste gases from the furnace top, without the employment of a bell. Their plan is to draw off the gases through a number of openings in the throat of the furnace, about 4 ft. below the gangway, the draught being effected by a very tall chimney stack, and regulated by a valve, by which means either the whole or a part of the gas formed can be carried off. It is hoped that these improvements will go on, and that every iron-producing district may cease to be a desert of spoil banks, enveloped in an atmosphere highly charged with soot.

The nature of the potters' occupation has been good deal discussed lately, owing to the light of a special Government enquiry having been turned upon it. The necessity for improved arrangements, with a view both to safety and sanitary results, is universally confessed, whilst the neglect to apply machinery to many operations in the earthenware manufacture has long been matter of surprise. There is now decided promise of improvement in these respects, and the new works now being erected contrive most favourably in every respect with those previously in existence. At Newport, Burslem, Mr. Anthony Shaw is about completing some works, which are a great advance on what has been too frequently the rule, and Mr. Edward Ridway is erecting new china-works at Shelton, which combine almost every practicable improvement. The Factory Acts appear to be working satisfactorily in that district.

Allusion has previously been made to some of the joint-stock companies of this district. The first limited joint-stock banking company started in this country was one at Birmingham, and its fourth report recommends payments in the shape of dividends at the rate of 30 per cent. per annum. At the annual meeting, on Monday, Mr. G. F. Muntz (the Chairman) congratulated the shareholders on the success of the bank, observing that their profit in 1862 amounted to 70,000, in 1863 they were 13,000, in 1864 they were 31,000, and the present year gave 43,000. (Applause.) So that if they would multiply the first year's profit by six, they would only just arrive at the profit of the fourth year of the existence of the bank. In the same manner the deposits had increased, which was the surest indication of the public confidence, and the great source of their profits. In 1862 the deposits amounted to 362,000, in 1863 they were 482,000, in 1864 they were 704,000, and this year they had risen to 1,107,000. As to their mode of doing business, the Chairman said the principles they had adopted had enabled them to acquire large profits, and at the same time make moderate charges to customers. When large losses were incurred by a bank, it involved the necessity of making undue charges upon the customers. In respect to the public as well or better than any other. The secret of this, was relied upon their customers doing a safe and legitimate trade, and avoided speculators and speculating operations. This company purchased the assets of the bank of Attwood, Spooner, and Co., on its failure, paying the creditors 11s. 3d. in the pound. The Birmingham and Midland Bank pays at the rate of 20 per cent., and the Bilston District Banking Company 10 per cent. per annum.

THE RATING OF MINES.—In the prospect of all exemptions from local rates being abolished by the present Parliament, Mr. Hedley has forwarded to the Poor Law Board a full report of his proceedings in reference to the rating of coal mines in this district. Mr. Hedley concludes his report by referring to the exemption of all other mines, except coal mines, and states that "it is urged that the great risk attending other descriptions of mines than coal mines makes it difficult to assess them; but no mine would be rated till it produced profits" and he adds—"I have recently visited the ironstone mines of Cleveland, the hematite ore mines of Lancashire, the lead mines of Cumberland, and the metallic iron mines of West Cornwall, and from what I have seen of the mode of working these mines, and the description of building and plant necessary to work them, I have no hesitation in stating that the principles now so successfully and satisfactorily applied to the rating of coal mines could be adopted for valuing every other description of mines."

CHESTER MOOR COLLIERY.—The sinking of this colliery is progressing satisfactorily. The sinkers have already penetrated to the depth of nearly 20 fathoms. A portion of the strata has been very favourable for their operations. The men are now busy cutting through a stratum of rock. The led of coal intended to be wrought lies at the depth of 50 or 60 fms.

Mr. C. W. HUTCHINSON has been presented with a handsome time-piece and tea service, on his leaving Ridsdale to fill a situation in the Ordnance Works at Elswick. Since the opening out of the iron mines by the Elswick firm Mr. Hutchinson has been resident at Ridsdale as engineer. The presentation was made by Mr. Little, the agent of the firm, in the name of the subscribers.

The workmen of the Stella Coal Company's collieries have presented a beautiful time-piece as a testimonial to their late manager, Mr. Simpson. In the presence of Mr. Harrison, the under-viewer, the engineer, the overman, and the other officials of the colliery, Mr. Nicholas Cheseau, one of the overmen, presented the testimonial, and doing so spoke of Mr. Simpson in the highest terms, and said he had known him for thirty years, and during all that period he had always studied to promote the welfare and happiness of the workmen under his direction.

The chemical works at Pockley Nook, St. Helen's, formerly the property of Messrs. Balmain and Co., have been purchased by a limited liability company, and will be again in full operation early next month. A number of artisans are busily engaged in the work of preparation, and the company have secured the valuable services of Mr. J. W. Kynaston, F.C.S., late with Messrs. Johnson, of Runcorn.

SEAHAM HARBOUR BLAST-FURNACES.—A prospectus has been issued by the East Rosedale Iron Company (Limited), with a capital of 100,000, in 5000 shares of 20s. each, and it is not anticipated that more than 10,000 shares will be required. The company has been formed for the purpose of purchasing the works upon, and leases of, certain estates in the parish of Hinderwell, in the North Riding of York, a little to the north of Whitby, containing an area of about 300 acres. The property abounds in ironstone of a superior quality, besides a valuable seam of jet rock, about 15 feet in thickness, from which oil of a valuable character has been extracted. It is contemplated by the company to lease the existing blast-furnaces, machinery, coke ovens, &c., at Seaham Harbour, the property of Earl Vane, who is prepared to let them to the company on advantageous terms. Arrangements have been made with Mr. Bessemer, who has joined the board, to use his patented process for improving the quality of pig-iron, and it is calculated that the pig-iron prepared by this process will realise an increased value, varying from 7s. 6d. to 12s. 6d. per ton.—*Newcastle Daily Chronicle*.

FOREIGN MINING AND METALLURGY.

The upward movement noted of late in Belgium has been confirmed. A quotation of 62. 16s. per ton for rolled No. 5 has now become general. Recent quotations may be said to have been generally maintained. Refining pig has made 32. 6s., casting ditto 34. 18s.; one furnace maintains a quotation of 42. per ton, but this is for an altogether special quality. It is difficult to indicate the actual quotation for rails, few contracts have been negotiated, and prices are kept secret. The Conduit Company has treated for 1000 tons with England. The collieries of the Ruh Company, a Rhenish-Belgian enterprise, will hold its annual meeting (Feb. 10) at Brussels. The Lavois and Blanc-Misseron Mines and Ironworks Company will meet, Feb. 12, at Brussels; the Falnué Collieries Company, Feb. 13, at Gand, &c. A company has been formed at Brussels, with a capital of 40,000, for the manufacture of submarine telegraphic wire, &c. An unofficial meeting of the Sambre Rolling-Works Company has been held at Brussels; it was convoked by a committee of shareholders, and had consequently no relation to an ordinary general meeting arranged to take place at Brussels on Monday, Feb. 13. The object of the two meetings was certainly very different. In the assembly convened for Monday it is proposed to vote the dissolution of the company, in consequence of the negative result of an attempt to sell the Maubeuge Works, while the unofficial meeting of shareholders discussed a means of preventing that liquidation, or at least of rendering it favourable to the shareholders in the Sambre undertaking. It was proposed that a new company should be formed to purchase the establishment of Bois-le-Tilleul, near Maubeuge, and if necessary the Houppes-sur-Sambre Works. The share capital of the new company was proposed to be 60,000, in 6000 preference shares of 10s. each, to receive 6 per cent. before any deduction. It was further proposed to create an unlimited number of dividend shares, of a nominal sum of 10s. each, to be given as a premium to every subscriber for five preference shares. These dividend shares would participate in the profits only after the deduction of 6 per cent. on the preference shares. The proposed new company will be formed if a sufficient capital is collected for the acquisition of the Bois-le-Tilleul Rolling-Mills, to secure which the promoters are prepared to offer as much as the sum of 40,000. It is not certain that it will be possible to obtain the works on these terms, as some higher bidder may appear. In any case the result will be favourable to the shareholders in the Sambre undertaking, as the dissolution will then be effected on better terms than could have been hoped for. An undertaking has been constituted under the title of the Coal Basins of the Hainaut Railways Company. The proposed capital is 1,200,000, divided into 20,000 shares; this capital may be carried to 2,000,000 with the approval of the general meeting. The lines which belong to the new company are the Haut and Bas-Picard, the working of which has been assumed since Jan. 1; the Frameries and Chimay, which will be constructed by the company, although it will be worked by the Centre, a girdle line at Charleroi, and some branches intended to unite the collieries of the Hainaut basin to existing lines. The President of the council of administration of this new and somewhat extensive undertaking is M. Forfamps.

The situation of metallurgical affairs in France has experienced no sensible modification. The quotation of second fusion pig in the Haute-Marne has slightly revived in consequence of an advance in English pig; No. 1 is quoted at 42. 9s. 6d. According to official documents just issued, 1865 must have been a good average year for French mining and metallurgical industry, and even a progressive one. In 1865, the extraction of coal from French mines, which in 1864 attained a total of 11,100,000 tons, amounted to 11,330,000 tons, of the average value of 9s. 2d. per ton. When we recall the fact that in 1860 the extraction of coal in France was only 8,300,000 tons—while in 1855 it was 7,450,000 tons; in 1850, 4,400,000 tons; in 1845, 4,200,000 tons; in 1840, 3,000,000 tons; in 1835, 2,500,000 tons; in 1830,

vessel containing one-fourth to one-eighth of a hundredweight of the oil. For several days the oil had been frozen. It was carefully handled, and pieces were separated by means of a piece of wood, and put into the bore-holes, and it was found that the frozen nitroglycerine exploded, quite as well, as the fluid. One day an overseer at the shaft hit upon the unlucky idea of breaking into pieces with a pick a seven or eight pound lump of the frozen nitroglycerine. The blow caused the mass to explode, and the unfortunate man was blown up into the air, and fell back into the shaft, some 40 or 50 ft. deep, whilst two workmen, who were making cartridges a short distance from him, luckily escaped with slight injuries.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

PORT PHILLIP.—The profit on the working was 1200*l.*; remittance, 600*l.* The mine is looking well.

MARIQUITA AND NEW GRANADA.—The improvement continues, the last month's returns showing \$8000 profit.

CASTELL CARIS DOCHAN.—The returns of Gold from this mine for the fourteen days worked in January is 68 ozs. 4 dwt., from 130 tons of stuff. The breaking of a part of the machinery at the end of December caused a deal of hindrance and delay last month, which will account for the smaller quantity than usually stamped. The total quantity of Gold obtained from the commencement is about 104*ozs.* 18 dwt., from 1510 tons of stuff.

Those interested in the LEAD MINES OF CARDIGAN will be glad to learn that several mines in this district have much improved lately—SOUTH DARREN in an especial degree, where the reserves of ore found are becoming very large, as all the ends driving west are good. There can be little doubt of this being an established dividend mine. There are the 20, 30, 40, 50, and 60 fathoms level ends west all in good ore, worth together about 80*l.* per fathom, while the stope together are worth 75*l.* per fathom, so that the prospects are really good.

DOLFRWYNOL SLATE AND SLAB QUARRIES.—A company is being formed in Manchester, for the purpose of working this property. But the scheme is, it is said, coming into existence with a threat of litigation hanging over it, in consequence of a dispute as to the right of ownership in the land.

COOLATRA AND BOND MINES are represented to be opening out most favourably. The agent describes the lead discovered and now driven through for some weeks as a splendid course of lead. Not only have they this important discovery, but a junction will be reached in a brief period, when it is confidently expected a further improvement will take place. Importantly, too, is the fact that in sinking the engine-shaft the quantity of lead ore is gradually on the increase, which augurs well for the continuation in depth of the great run of lead they saw here in the 36, and which holds good as far as yet driven on. In the north part of the mine, too, they have a productive lode 3 ft. wide, with unmistakable symptoms of nearing another shoot of lead ore known to exist in the upper levels. Altogether the mine is represented to be one of the great prizes which sometimes turn up even in the most neglected districts. As usual, sets in immediate proximity are being rapidly secured, and it is not at all improbable that this well-known lead district will be as much sought after as the East Rose, Trellawny, or Chilverton localities.

ELLEN UNITED MINES.—That which has been held for many years as the great desideratum of the locality has at length (by the wisdom of the directory, and by mutual concession on the part of the agents of the lord proprietors) been brought about—the amalgamation of the Ellen United sett on the east, and Old Wheal Bassett on the west. It had been originally intended to have erected a 36 or 40-in. cylinder on the Ellen sett, which would have been sufficiently powerful to drain the lodes therein, but by the substitution of a much larger engine, and placing it in close proximity to the Old Bassett sett, on the same lodes, the entire run can be commanded. So obvious an advantage was evident to all, but the question of difficulty arose on whose ground should the engine be fixed, the lords of each insisting on the privilege. It has now been settled, the building of the engine-house let, and the whole of the contracts signed, so that within six months one of the finest runs of shallow old mine in Cornwall will be in active operation. So confident are the miners of making large returns, that the agents are literally besieged by tributaries, offering to take pitches as ventures for months in the different levels as soon as ever the water is withdrawn. It would be well if such mutual understandings were such a spirit displayed instead of, as is often the case, by litigation and obstinacy; mining would be encouraged, adventurers instead of lawyers would be enriched, and the lords' property developed instead of lying to waste. The directors of the Ellen United deserve the thanks of the shareholders for their discrimination and energy, and may rely upon extensive support from resident adventurers.

HARWOOD MINES.—The whole of the ore weighed off at Harwood Mines for the year is 94 tons 10 cwt., and they have about 20 tons more worked on the mines at present. The prospects at the mines are more encouraging at present than they have been during the present company's working.

CLOWAN MINES.—Having made my round over these mines, and ascertained how things are progressing, I beg to state that I first visited the GREAT WHEAL FORTESCUE, and I am pleased to say that the more I view this sett, and contemplate its prospects, the beautiful metalliferous character of the rocks and lodes, and the splendid gossans they produce, the more I am strengthened in my opinion that this will turn out to be a very profitable mine, quite equal to its neighbours, Cremer and Abraham United, Wheal Curtis, Wheal Vor, Wheal Metal, &c. In the interval of my last two inspections they have broken and taken to surface many tons of silver-lead ore. There must be a large lode of it below, if I judge rightly. The men told me the lode was 3 to 4 ft. wide, a good mine of itself. They have also discovered another copper lode south, which is showing good signs, its composition being true copper gossans, crystal quartz, studded with metallic particles; also cast of iron, and regulus of antimony, accompanied with munde, some yellow copper, blonde, and other saline substances.—WHEAL CURRISS still progresses satisfactorily. The lode holds down good at Square's shaft, and they are daily expecting to come upon Curtis's lode in the 60 cross-cut. The plant and machinery in this mine is not surpassed by any, if any. The dressing department is a good model for imitation. No calling mine stands in a better financial position. They made a heavy call at the last meeting, to pay off all outstanding debts, and to have cash in hand to work the mine vigorously. No mine has been wrought with greater force, not in a more business-like manner. If all the new mines throughout the county were worked in like manner there would be no complaining heard, mining would prosper, the speculator would be paid, and the mine captains get the character they so well deserve—of honest and persevering men; but now, being limited to about cash enough to pay for the cost of engine, agency, &c., and no time to explore the mine, they are reckoned by many as a set of know-nothings. But try us fairly, and we will show you, one and all, that, let us have sufficient capital, we will engage to find good dividend mines for you, two out of three we take in hand. I refer to practical mine captains.—I would say something about CLOWANCE WOOD. I had a look at some very promising stuff on the floors, recently taken up from the 20 ft. level. Sinks this mine, and explore the lodes deeper, and very likely you will get a dividend mine in this sett.—I must now say something in reference to the old mother mines, CREMER AND ABRAM UNITED. I went there to have a look at a pile of stuff they had just drawn to surface, a splendid pile of copper instead, such as I have not witnessed in these parts before. I was informed that it came out of the 40, in whole ground. This, no doubt, will be a good mine of itself, as they have some length of unopened ground in this part of it. I assure you that the shareholders themselves cannot be more joyous than myself and the public generally hereabout. This should stimulate the party holding the BINNED DOWNS to action, as the ore is making that way, and we all know that Binner Downs is making towards this course of copper, there being some hundreds of fathoms of whole ground standing between the two sets. A good run of ore ground for each is left by the former workers.—JOHN SEYMOUR: Leedstown.

THE SLATE TRADE.—Until quite recently there were but two quarrying districts in Merionethshire—Ffestiniog and Corris—and the breadth of the county divided these. The latter district was exceedingly limited, only containing the Aberllefeny and Geiwar Quarries of any note, and yet the whole of the mountains, of this land of mountains, are intersected with slate veins, only wanting labour and capital to develop them. These desiderata are now being brought the upper part to the very large extent, and great activity prevails on every hand; many promising slate sets are in course of being proved, and others that are proved to yield good slate have changed hands, to the advantage of the vendors and of the district generally. Within a very short period three companies have been formed for the purpose of fully developing and working slate quarries in this locality. The Henddoe slate and Slab Company, with a capital of 50,000*l.* in 12,000 shares. This company was formed, and its offices are situated, in Birmingham. Their quarry is $\frac{1}{4}$ mile from the Cambrian Railway, and 2 miles from the Port of Barmouth. It yields a very beautiful and marketable slate, but it will take some time and money yet to develop it sufficiently to make it return profits. It adjoins the Tydlyn Sheffrey Quarry. Another company is formed, and is the most important, so far as regards the amount of its capital, which is 300,000*l.* This company was formed in London, for the purchase of the Tyn-y-coed Quarry, at Arthog, and the Menlyn Quarry, at Dinas Mowddy. Tyn-y-coed is a very extensive property, consisting of freehold and Crown land. The slate is on the Crown land, in a vein of 444 yards width—600 feet in depth, and a run of 2200 yards upon the course of it is in the Tyn-y-coed grant. The bearing of the vein is east and west, the mountain ends abruptly at the western boundary of the sett, and has a free face overlooking Carnarvon Bay. It was here that the first openings were made, which resulted so unfortunately; 30,000*l.* was spent in the trial, and the proprietors, Messrs. D. Davis and Co., had serious intentions of abandoning the enterprise as another failure; but they were induced to try an opening on the north side, which is also free on the range of the vein. They drove a level from the turnpike road across the vein, and before many yards had been opened they came to good slate; but before reaching this they came upon something else: this was a bar of hard rock, the cause of their failure in the west end of the sett. This fault took an oblique course across the entire vein, near to the free end, and had disturbed and shattered the slate rock outside of its course. But if it had injured it in one place it had improved it in another: for it has served as a good supporting power, and has given great strength and character to the metal deposited within its range. The colour of the Tyn-y-coed slate is very dark, with an even but not fine cleavage; the texture is coarse and strong, with a foliated structure. The general character of the metal is slightly marred by the presence of sulphur. The other quarry of the company is at Dinas Mowddy, and is on Mr. Buckley's estate. It is well situated for transit purposes as the Cambrian Road and Dinas branch of the Cambrian Railway come close to its boundary. There is a wide vein of good metal, and an uncommon rise of ground between 800 and 900 ft. from the road to the top of the mountain. Mr. C. Robins is the managing director here, and Mr. W. Davies, of the Tyn-y-coed Quarry.

BLASTING BY ELECTRICITY.—In noticing the Christmas entertainments provided at the Royal Polytechnic, we congratulated the visitors upon the revival of the more scientific entertainments, for which the institution so long enjoyed a high reputation, in the "Half-hours with Sir David Brewster," and general optical lectures of Prof. Pepper, and during the past week a further addition has been made in the same direction—a lecture by Mr. J. L. King, F.G.S., on the Electric Torpedo, which is particularly interesting to the readers of the Journal, from the facility with which the system of exploding the charge described could be applied to the firing of the charges in the blasting operations connected with ordinary mining. For the introduction of the torpedo we are indebted to Jacob, of St. Petersburg, but owing to the attempt of that great chemist to make them self-acting, the greater part of their power even when they exploded was lost, whilst but little difficulty was experienced by the English sailors in fishing them up, and destroying them altogether. Since that time, however, the application of electricity to their explosion has rendered them far more dangerous to an enemy, and the proof which these have afforded that the ignition of an explosive charge can be placed entirely under the control of a person far beyond danger, may fairly be taken advantage of by miners. The effect of the magneto-explosive, invented by Prof. Wheatstone, F.R.S., appears, from Mr. King's description of it, to be perfect, and it would be well for all connected with mining op-

erations to hear the lecture, with a view to the adoption of blasting by electricity, so as to prevent the many accidents from premature explosions and misfires which have now to be deplored.

NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for the following:—H. N. PENRICE, Witten House, near Norwich.—Improvements in machinery employed in forming tunnels and galleries in rocks. Jan. 8.

P. A. BACHELOR, 34, Upper Berkeley-street.—Improvements in the construction, arrangement, and application of rotors and settings in combination with machinery or apparatus for the manufacture of coal or other gas. Jan. 11.

F. PRESTON, Lancashire Steel Company, near Manchester.—Improvements in machinery and apparatus used in the manufacture of iron and steel. Jan. 17.

J. JONES, of San Francisco, California, now of 8, Southampton-buildings.—Improvements in machinery for crushing and pulverising ores and other hard substances. Jan. 24.

LETTERS PATENT have been issued for the following:—W. H. G. Jones, Cross-square, City.—Improvements in machinery employed for crushing, amalgamating, and washing gold quartz and other minerals or matters containing gold or other metals. Oct. 13.

SPECIFICATIONS published during the week:—Casting steel tyres, 6d.; shaping file and other blanks, 10d.

L. DE FONTAINEMOREAU.

UTILISATION OF BLAST-FURNACE GASES.—An improvement in the utilisation of the waste gases of blast-furnaces has been patented by Mr. J. Cliff, of Wortley, near Leeds; but the patent has become void from neglect to file a complete specification. It has heretofore been common to use the gases generated in the blast-furnaces for heating the hot-air stoves, and for generating steam in boilers, and for some other purposes. Instead of this, Mr. Joseph Cliff proposes to blow them back into the blast-furnace itself. One mode in which this may be done is by using an exhaust cylinder, which is connected by pipes with the waste gas-pipe, and is provided with a piston, which is worked by the blast-engine, and thereby exhausts or draws the gases from the waste gas-pipe or furnace, and then forces the said gases into a receiver at such pressure as may be desirable. The gases pass from such receiver to the furnace either by an entirely separate pipe of suitable diameter, which shall deliver the gases close to the tuyeres, or shall join the air in the tuyeres immediately before it goes into the furnace, so that there may be a rapid and complete mixture of the air and gases at the point of ignition in the furnace. By these means such portion of the waste gases as may be found most suitable will be made available for the more economical working of the blast-furnace, coals or coke will be saved, a greater heat maintained in the furnace, and the yield or make of iron will be increased.

PRESERVING TIMBER.—Upon several previous occasions reference has been made in the Journal to the process of preserving timber, invented by Mr. JOHN BETHELL, of King William-street, and as the durability secured by the creosoting has now been thoroughly tested, he has prepared a pamphlet stating the results obtained. Mr. Betshell has received some highly satisfactory testimonials with respect to the way in which timber is creosoted by him, but he states that he has reason to believe that since the expiration of his patent much timber has been prepared with less than the proper proportion (7 to 10 lbs. of creosote to the cubic foot) of creosote oil; and that in some cases timber has even been prepared by simply steeping it in creosote oil; but he takes occasion to observe that neither of these practices has been in any way sanctioned by him, and he does not believe they will prevent the internal rotting of the timber. It will be remembered that the process of creosoting requires some care and trouble when properly carried out, and it would be a matter for regret if so useful a process should lose its reputation through carelessness. Limitations being introduced. The timber, being first dried, and cut according to the pattern required, is carefully weighed, and is then placed in a cylinder of wrought-iron, the doors of which are hermetically closed. The air and the moisture contained in the lodes are then exhausted from it, and from the cylinder containing it, by a powerful air-pump. The pores of the wood being now empty, and capable of being absolutely filled, the preservative material, called creosote oil (which consists of the heavy bituminous oil distilled from gas-tar and pitch), heated up to 120° Fahr., is forced into the body of the timber by powerful hydrostatic pumps, exerting a pressure of 120 to 200 lbs. per square inch. This pressure is maintained until it appears that the proper quantity of creosote oil has entered into the wood. The wood is then taken out and weighed, to verify the result. From a report presented to the Legislative Assembly by the Minister of Public Works in Belgium, it appears that although the average duration (ascertained during a period of 25 years) of unprepared oak sleepers was 11-7-11½ years, and of unprepared fir sleepers 7½ years, it was found when, in the spring of 1865, a very careful examination was made by the authorities that all the creosoted sleepers (without one of them had been in use 19 years) were perfectly sound and fresh, and in consequence the Belgian Government decided to have all their sleepers creosoted in future.

OBTAINING MOTIVE POWER.—An invention has been patented by Mr. M. P. Watt Boulton, of Tew Park, which relates to obtaining motive power from aërial fluids and liquids. He states that when it is desired to heat air or aërial fluids in a close vessel under pressure, this may be done by forcing into the vessel heated matter in a state of fusion, which may be injected into the vessel in numerous small jets or streams. The matter thus employed may be a metal or metallic alloy in a state of fusion, or it may be some compound of a metal with non-metallic elements, such as metallic oxides, chlorides, fluorides, salts, such as carbonates, silicates, borates, and mixtures of such substances. The heated liquid may be made to flow in contact with plates, surfaces, or bodies surrounded by the aërial fluid which it is desired to heat, and may be made to pass through perforations in these. Also the aërial fluid may be caused to pass through the heated liquid, receiving heat in its passage through it. The piston of the pump employed for forcing the heated liquid may be similar to that which the patented device in the specification of a previous patent as applicable to engines which are worked by heated gases. The valves employed may be kept cool in the interior by the passage through them of water or liquid. The exterior of the cylinder may be kept cool by water, the interior being separated from this by some substance which is a slow conductor of heat. This method of heating fluid may be employed for superheating steam. It may also be employed to heat aërial fluid when used as in Stirling's air-engine. In such a case, to prevent oxidation of material, the aërial fluid employed may be some fluid other than atmospheric air, such as nitrogen or carbonic oxide. The following is a mode of employing heated aërial fluid for the production of motive power:—Heated aërial fluid which has been contained in a vessel under pressure is caused to issue in a constant stream or blast into a passage communicating with the air, acting like a blast in the chimney of a locomotive engine; it draws air, or causes air to be forced into the passage. The cooler current of fluid thus created passes into a chamber, in which it creates pressure, and from this chamber the fluid passes to a cylinder in which it works a piston.

STEAM-HAMMERS.—According to the invention of Mr. James Dodge, of Manchester, the object of which is to enable the workmen to prevent the falling of the hammer, at pleasure, and for any period of time required, it is proposed to apply a catch, which passes under the hammer when it is elevated, and, therefore, supports it in its raised position. To this catch he connects a treadle or lever, by which the catch may be removed when the hammer is to fall.

DAMPER REGULATOR.—An ingenious and useful machine has been invented by Mr. Clark, of New York, by which the fire is controlled by the pressure of the steam in the boiler, which, after an experience of years in most of our manufacturing establishments, is proved to possess invaluable features unattainable by any other device.

By its use the steam is always kept at a uniform pressure, it saves grate bars and furnace fronts, besides preventing the straining of the boiler, and without saving at least 12½ per cent in fuel, a matter of prime importance when coal is heated at its present high price. In fact, it is an ever faithful, always reliable, automatic watchman. Thousands of these regulators are now in practical use.

BENNETT AND STARK, Solicitors for the Liquidator, 4, Furnival's Inn.

Dated the 6th day of February, 1866.

THE FOREIGN LANDS AND MINERAL RIGHTS PURCHASE COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the Foreign Lands and Mineral Rights Purchase Company (Limited) will be HELD at the office of the said company, No. 8, Austinfairs, in the City of London, on MONDAY, the 26th day of February, at 12 o'clock precisely, for the purpose of confirming the following special resolution, passed at an extraordinary general meeting of this company, held on the 25th day of January last:—

"That the agreement dated 4th January, 1866, between the Chontales Gold and Silver Mining Company (Limited) of the one part, and this company of the other part, now read, be, and the same is hereby confirmed." C. J. BUNYON, Chairman.

Dated February 5, 1866. J. H. MURCHISON, Sec.

THE CHONTALES GOLD AND SILVER MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the above company will be HELD at the office of the company, 185, Gresham House, Old Broad-street, London, on Thursday, the 15th day of February, at 2 o'clock precisely, to receive the directors', managers', and auditors' reports, and on other business, pursuant to the Articles of Association of the said company.

The rooms for the registration of shares will be closed from Wednesday, the 14th, until Wednesday, the 28th inst., both days inclusive.

By order, JOHN SPAIN, Acting Secretary.

26, Lincoln's Inn-fields, London, Feb. 8, 1866.

HUELVA COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the Huelva Copper Mining Company (Limited) will be HELD at the office of Messrs. Bircham and Co., No. 46, Parliament-street, Westminster, on MONDAY, the 12th March next, at One o'clock P.M. precisely, for the purpose of considering the account of the liquidators. ALFRED HERVEY, Liquidators.

Dated this 7th day of February, 1866. E. P. ROWSELL, Liquidators.

THE HENDRE DDU SLATE AND SLAB QUARRY COMPANY (LIMITED).—Notice is hereby given, that the FIFTH ORDINARY GENERAL MEETING of the shareholders of this company will be HELD at the Freemasons' Tavern, Great Queen-street, Lincoln's Inn-fields, W.C., London, on Wednesday, the 28th February, 1866, at Two o'clock precisely, to elect the directors, managers, and auditors' reports, and on other business, pursuant to the Articles of Association of the said company.

The rooms for the registration of shares will be closed from Wednesday, the 14th, until Wednesday, the 28th inst., both days inclusive.

By order, JOHN SPAIN, Acting Secretary.

185, Gresham House, London, E.C., January 31, 1866.

THE FOREIGN LANDS AND MINERAL RIGHTS PURCHASE COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the Foreign Lands and Mineral Rights Purchase Company (Limited) will be HELD at the office of the said company, No. 8, Austinfairs, in the City of London, on MONDAY, the 26th day of February, at 12 o'clock precisely, for the purpose of confirming the following special resolution, passed at an extraordinary general meeting of this company, held on the 25th day of January last:—

"That the agreement dated 4th January, 1866, between the Chontales Gold and Silver Mining Company (Limited) of the one part, and this company of the other part, now read, be, and the same is hereby confirmed." C. J. BUNYON, Chairman.

Dated February 5, 1866. J. H. MURCHISON, Sec.

THE MATTER OF THE COMPANIES ACT, 1862, and of the CRIDDIS COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the Criddis Copper Mining Company (Limited), held at the Black Bay Hotel, in the town of Nottingham, on Thursday, the 18th day of January, 1866, at Eleven o'clock

THE SOUTH-CORNWALL MINING COMPANY (LIMITED).

Completely registered under the Companies Act, 1862.

Capital £40,000, in 2000 shares of £20 each.

Deposit on application £5 per share, and £5 on allotment.

It is not expected any further calls will be required, as certain and regularly increasing returns of ore will be made immediately after the erection of machinery and the drainage of the mine commences.

Applicants not receiving an allotment will have their deposits returned without deduction or delay.

DIRECTORS.

W. H. WILLIAMS, Esq., Manchester (Director of the Devon Wheal Lopes Mining Company, Limited).

E. HARVEY WADGE, Esq., F.G.S., Stradbrook Hall, Blackrock (Director of the Devon Wheal Lopes).

HAROLD EVANS, Esq., Edge Vale, Liverpool.

H. J. HARVEY, Esq., Church-street, Liverpool.

FREDERICK ROOKE, Esq., Southville-crescent, Bedminster.

OSMOND RHODES, Esq., Potter Newton, near Leeds.

BANKERS—Devon and Cornwall Banking Company, St. Austell.

FINANCIAL AGENTS—Messrs. Harvey and Co., Clarence Chambers, Manchester.

SECRETARY—Mr. Charles Gibson.

OFFICES—ALDINE CHAMBERS, PRINCES STREET, MANCHESTER.

The mines comprised in the property of this company were worked some years since for tin, and subsequently for china-clay, and were known as the Great Wheal Bonny Tin Mines. With inadequate power and the imperfect machinery then in use they made considerable remunerative returns from tin alone, wholly irrespective of the clay produce, even at the then extremely low prices for the ore. The present company purpose immediately erecting powerful engines, the most modern and approved mechanical contrivances, and engaging the best men that can be procured for every department.

The mines are situated in the very centre of the most ancient and celebrated of one of Cornwall's most remunerative tin districts, at the head of the Goss Moor Stream Tin Work, whence tin (undoubtedly washed from the backs of these lodes by some tremendous convolution of nature) to the amount of millions sterling, have been raised for many generations. The locality is now celebrated for its produce of china-clay. At the time of the mine's suspension the china-clay works on this sett were yielding large profits at a very trifling outlay, but suffered from the loss of the water drained by the mine, and which was required for washing and bleaching purposes at the surface. In consequence also of the great expenditure which the erection of new and improved machinery to develop the mine would have involved, it was decided that, for a time, operations should be stopped, and the china-clay works only prosecuted, this being the only reason why the mines fell into abeyance, and cannot again recur.

A perusal of the reports will fully explain the nature of the strata and lodes. The mines are in the same geological formation, are surrounded by and adjoin the celebrated Great Wheal Beam, Goonbarrow Rocks and Treverbyn, South Beam, and other rich tin mines, which have yielded large profits.

The great value of parallel lodes has been recently shown in the immense returns of tin from the Great Wheal Vor Mine. The first was worked to a depth of 350 fathoms, and produces tin ore amounting in value to upwards of two millions sterling. After this it was thought by many that the mine was exhausted, instead of which a new company has been formed, and from a parallel lode, at a comparatively shallow depth, the returns of ore are so large and constantly increasing, that it is fully expected the present working will surpass the first. A further illustration of this statement is already showing itself in the celebrated Cremer and Wheal Abraham Mines, where a parallel lode at present unworked gives indications of mineral wealth equal to that from which ore was obtained amounting to upwards of one million sterling. The directors do not think it too much to expect that the parallel lodes of this property, which run through the sett for more than one thousand yards, will confirm the theory of the value of lodes, apparently produced at the same time, and by the same causes.

The facts connected with the former working of South Cornwall sufficiently attest the value of the lode partially opened. At a depth of only 50 fathoms it is from 7 ft. to 9 ft. wide, very rich in tin, and large quantities of tin ground remain, which will be brought to market immediately the water is pumped out. Tin levels have been driven, and ore enough sent to surface to produce remunerative returns; and, if with a small engine, and only a few heads of stamps, this result was obtained, it may be anticipated with certainty, that with the superior machines recently introduced into the leading tin mines, including at least 48 heads of stamps, sufficient tin will be raised from the one lode to meet all working expenses, and pay a dividend of at least 25 per cent., and as soon as operations can be commenced upon the parallel lodes, still greater results may confidently be expected. One great advantage of the present position of the mine is, that there are fine runs of tin ground laid open, where men may be employed raising ore as soon as the water is drained a few fathoms below the adit. This opinion has been founded on the above facts, and has been corroborated by all the mining talent the promoters could command.

In addition to the reports obtained at different times from the best mining authorities in Cornwall, the directors have obtained special surveys and reports from Mr. John Hitchins, of London; Capt. Charles Thomas, of the celebrated Dolcoath Mine; Capt. Edwards, manager of the Great Wheal Beam Mine; Mr. Sampson, mineral agent to Sir J. Graves Sawle, Bart.; Capt. Pope, manager of the famous Wheal Bassett; Capt. Vivian, manager of the celebrated Cremer and Wheal Abraham; Capt. Joseph Jewell, agent to Messrs. John Taylor and Sons; Capt. Hancock, manager of the Great Polgoon Tin Mine; of Mr. Henry James, mineral surveyor, Redruth; Mr. Brenton Symons, mineral surveyor, Truro, and many others (whose full reports may be had on application), and from miners who were employed in the mine during the last working. Their unanimous testimony is that the lodes are rich in tin of a superior quality, and calculated to make grain tin; that the mine may be worked for an almost unlimited period, without any failure in the quantity of ore ground; and that the thorough development of the lodes by proper machinery will secure large profits to the shareholders. This estimate is further borne out by the fact that a great number of persons in the neighbourhood are anxious to take shares in the undertaking.

Prospectuses, and forms of application for the remaining shares, may be obtained from Messrs. HARVEY and Co., Financial Agents to the company, Clarence Chambers, Manchester.

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DIRECTORS.

THE LORD ERNEST BRUDENELL WILLIAM JAMES MAXWELL, Esq. BRUCE, M.P. DUNCAN MACDONALD, Esq. HENRY PAUL, Esq., M.P. JOHN OLIVER HANSON, Esq. SIR SIBBALD DAVID SCOTT, Bart. RICHARD BLANEY WADE, Esq. HENRY ELIOT THOMAS YORKE.

Subscribed capital £2,100,000 0 0 Paid-up capital 1,080,000 0 0 Reserve fund 225,452 6 2

Number of shareholders, 1704.

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Atc., all that and those the part of the said lands of Rockstown held under lease for lives, renewable for ever, situate in the said barony of Arklow and county of Wicklow, containing 94a. 0s. 7p. statute measure, with the appurtenances (except as in an indenture of March 4, 1851, is excepted), subject to a yearly rent of £8. 9s. 2*3*/₄d. of the present currency; and as particularly described in a conveyance from the Landed Estates Court, dated the 20th of April, 1863, but indemnified by other parts of the same lands, which comprise in all 372a. 3s. 5p. statute measure, or thereabouts, situate in the parish of Dungantown, in the barony of Arklow and county of Wicklow, for a term of 21 years, from the 30th day of December, 1864, at a rent of £20 of the gold or gold ore, and 1-13th of the silver ore, copper ore, and all other ores, metals, or mineral substances upon or under the lands of Rockstown Lower, containing 142a. 2s. 6*3*/₄p. statute measure, and Rockstown Upper, containing 258a. 0s. 2*3*/₄p. statute measure, situate in the parish of Castlemacadam; and the lands of Newbawn, containing 419a. 1s. 9*3*/₄p. statute measure, or thereabouts, situate in the parish of Dungantown, in the barony of Arklow and county of Wicklow, for a term of 21 years, from the 30th day of December, 1864, at a rent of £20 of the gold or gold ore, and 1-13th of the silver ore, copper ore, and all other ores, metals, or mineral substances upon or under the lands of Newbawn, containing 419a. 1s. 9*3*/₄p. statute measure, or thereabouts, situate in the parish of Dungantown, in the barony of Arklow and county of Wicklow, for a term of 21 years, from the 30th day of December, 1864, at a rent of £20 of the gold or gold ore, and 1-13th of the silver ore, copper ore, and all other ores, metals, or mineral substances upon or under the lands of Newbawn, containing 419a. 1s. 9*3*/₄p. statute measure, or thereabouts, situate in the parish of Dungantown, in the barony of Arklow and county of Wicklow, 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THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr. Business.	Total divs.	Per Share.	Last paid
200 Botallack (tin, copper), St. Just	91 5 0.	—	—	483 15 0.	3 0 0	Aug. 1865
10000 British Salt Company [L.]	7 0 0.	—	—	9 per cent.	—	Aug. 1865
10000 Brookford (lead), Cardigan [L. £15]	12 0 0.	—	—	7 15 0.	0 10 0	Jan. 1866
1200 Bryn Gwyn (lead), Mold [L.]	9 0 0.	—	—	3 3 6.	0 13 6.	Aug. 1865
916 Cargoll (silver-lead), Newlyn	15 5 7.	33	30 32	12 15 0.	1 0 0	Nov. 1865
2880 Clifford Amalgamated (cop.), Gwennan	30 0 0.	16 1/2	14 15	35 6 0.	0 10 0	June 1865
867 Cwrt Efrin (lead), Cardiganshire [L.]	7 10 0.	—	—	18 18 0.	1 0 0	Jan. 1866
280 Downton Mines (silver-lead), Durham	300 0 0.	—	—	342 10 0.	5 0	Dec. 1865
1024 Devon Gt. Con. (cop.), Tavistock [S.E.]	1 0 0.	580	570 290	1008 0.	9 0	Jan. 1866
358 Dolcoath (copper, tin), Camborne	128 17 6.	—	—	807 10 0.	4 0	Dec. 1865
6000 East Barn Brass (copper), Redruth	18 3 0.	—	—	4 416.	0 5 0.	May 5 0.
6144 East Cardon (copper), St. Cleer [S.E.]	2 14 6.	—	—	6 3 74.	14 3 0.	May 5 0.
300 East Darren (lead), Cardiganshire	32 0 0.	—	—	109 10 0.	2 0	Jan. 1866
5000 East Rosewarne (cop., tin), Gwinear	2 18 0.	—	—	10 6 0.	1 6 1.	Jan. 1866
1906 East Wheal Lovell (tin), Wenvord	3 9 0.	—	—	124 111 12 1/2.	2 0 0.	Oct. 1865
2800 Foxdale (lead), Isle of Man [L.]	25 0 0.	—	—	67 10 0.	0 10 0	Dec. 1865
5000 Frank Mills (lead), Christow	3 18 6.	—	—	3 0 6.	0 7 0	Nov. 1865
15000 Great Laxey (lead), Isle of Man [L.]	4 0 0.	20 1/2	19 14 20 1/2	3 15 0.	0 10 0	Dec. 1865
5908 Great Wh. Vor (tin, cop.), Helston [S.E.]	40 0 0.	31 1/2	30 31	8 17 0.	1 0 0	Dec. 1865
1024 Herdstone (ld.), near Liskeard [S.E.]	8 10 0.	40	37 39	34 5 0.	1 15 0.	Oct. 1865
23000 Minting Co. (Ireland), (cop., lead, coal)	7 0 0.	20	19 1/2	187 13 0.	5 15 0	Nov. 1865
6000 New Birch Tor and Vilster Cons. (tin)	1 6 6.	—	—	9 13 0.	0 2 0	Oct. 1865
200 Parys Mines (copper), Anglesey [L.]	50 0 0.	—	—	157 0 0.	5 0 0	Jan. 1866
1123 Providence (tin), Uny Lelant [S.E.]	10 6 7.	38	35 37	79 7 6.	0 0 0	Nov. 1865
813 South Cardon (cop.), St. Cleer [S.E.]	1 5 0.	—	—	510 10 0.	7 0 0	Jan. 1866
6000 Tincroft (cop., tin), Pool, Illogan [S.E.]	9 0 0.	184	15 16	18 1 0.	1 0 0	Jan. 1866
3000 Miners Boundary (lead), Wrexham [L.]	1 0 0.	4	3 1/2 4	3 5 0.	0 2 0	Dec. 1865
1800 Miners Mining Co. [L.], (ld.), Wrexham	26 0 0.	—	—	10 0 0.	0 2 0	Dec. 1865
23000 Minting Co. (lead), Tiverton and Vilster Cons. (tin)	7 0 0.	20	19 1/2	19 11 0.	5 15 0	Nov. 1865
1024 Wh. Exmouth (lead), Christow	—	—	—	67 10 0.	2 0 0	Feb. 1866
1024 Wh. Exmouth (copper), Devon	20 0 0.	—	—	299 0 0.	1 0 0	May 1865
4285 Wh. Laxey (tin), St. Agnes	5 4 6.	4	—	3 15 0.	0 3 6	Nov. 1865
1024 Wh. Mary Ann (ld.), Menheniot [S.E.]	8 0 0.	—	—	59 17 0.	0 10 0	Dec. 1865
2000 Wh. Rose (copper), Scorrier	—	—	—	15 0 0.	0 10 0	Oct. 1865
398 Wh. Seton (tin, copper), Camborne	58 10 0.	225	217 1/2 221	216 15 0.	5 0 0	Dec. 1865
1040 Wh. Trelawny (all.), Liskeard [S.E.]	8 17 0.	17 1/2 18 1/2	16 1/2 18 1/2	55 5 0.	0 12 5	Dec. 1865
7000 Wicklow (copper) [L.], Wicklow	2 10 0.	19 1/2	20	15 11 0.	0 0 0	Nov. 1865

* Dividends paid every two months. † Dividends paid every three months.

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

1200 Alderley Edge (cop.), Cheshire [L.]	10 0 0.	—	—	11 3 0.	0 15 0	Dec. 1864
3000 Bedford United (copper), Tavistock	3 8 8.	—	—	13 11 0.	0 2 6	Oct. 1864
1248 Boscastle (tin, copper), St. Just	6 15 0.	—	—	1 5 0.	0 5 0	May 1865
240 Boscean (tin), St. Just	—	—	—	0 17 6.	0 2 6	Jan. 1866
1600 Brixham Hematite Iron [L. £25]	20 10 0.	—	—	36 10 0.	1 0 0	Dec. 1862
128 East Basset (lead), Illogan	6 7 6.	—	—	0 8 0.	0 6 0	Nov. 1864
1800 Carn Brass (copper, tin), Illogan	17 0 0.	—	—	280 10 0.	2 0 0	Dec. 1864
286 Cenwra (cop., tin), Camborne	76 10 0.	—	—	85 0.	0 3 0	June 1864
2450 Cook's Kitchen (copper), Illogan	18 18 9.	8	6 8	1 7 0.	0 7 0	May 1865
1024 Copper Hill (copper), Redruth	12 0 0.	—	—	2 7 6.	—	Sept. 1862
1024 Copper Hill (copper), Redruth	—	—	—	—	—	—
12800 Drake Wall (tin, copper), Calstock	2 1 0.	1	—	0 18 0.	0 1 6	May 1863
8000 Dyfnawn (lead), Wales	12 8 6.	—	—	0 17 6.	0 2 6	Jan. 1863
1024 East Basset (cop.), Redruth [S.E.]	29 10 0.	18	19 21	126 0.	0 1 0	Nov. 1864
128 East Pool (tin, copper), Pool, Illogan	24 8 0.	—	—	369 10 0.	4 0 0	Jan. 1864
240 Fawr Cons. (copper), Tywardreath	41 11 6.	—	—	41 0.	0 2 6	June 1860
119 Great Fowey (tin), Germoe	100 0.	—	—	15 0 0.	0 0 0	Aug. 1864
10240 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	4 416.	0 0 0	—
42000 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—
1058 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—
12800 Drake Wall (tin, copper), Calstock	2 1 0.	1	—	0 18 0.	0 1 6	May 1863
8000 Dyfnawn (lead), Wales	12 8 6.	—	—	0 17 6.	0 2 6	Jan. 1863
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42000 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—
1058 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—
12800 Drake Wall (tin, copper), Calstock	2 1 0.	1	—	0 18 0.	0 1 6	May 1863
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1058 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—
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1024 East Basset (cop.), Redruth [S.E.]	29 10 0.	18	19 21	126 0.	0 1 0	Nov. 1864
128 East Pool (tin, copper), Pool, Illogan	24 8 0.	—	—	369 10 0.	4 0 0	Jan. 1864
240 Fawr Cons. (copper), Tywardreath	41 11 6.	—	—	41 0.	0 2 6	June 1860
119 Great Fowey (tin), Germoe	100 0.	—	—	15 0 0.	0 0 0	Aug. 1864
10240 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	4 416.	0 0 0	—
42000 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—
1058 Great Miners of England [2000 £25 paid, 40000 £100 paid.]	—	—	—	1 0 0.	0 0 0	—